

From: Rob Wilson
 To: "Kirsten Dell-Hartgers"; Garry Van der Krogt
 Cc: Margaret Waller; Les Wilson
 Subject: RE: Cashmere High - id 340 - monthly fire alarm and sprinklr testing
 Date: Monday, 11 February 2019 6:21:37 p.m.
 Attachments: [REDACTED]

out of scope

Hi Kirsten,

This is not good, can you advise who did the report, AON, OR A Fire Engineer? and if ok supply us with a copy. You will recall we removed Wormald from the site to avoid and conflict while Aethon were on site and I have been told by Kane Lacey from Aethon that they were doing the monthlies on both systems, we offered to pay a reasonable sum for this service but have never been sent and invoice. When do Aethon vacate the site?

I have attached the latest annual and one 6 monthly inspection by Wormald, you will see they do not include either the fire or sprinkler systems.

I am of then opinion that the report needs to be examined by our fire alarm upgrade manager Garry van der Krogt who is based in our Chch office, as there is lot of inter company rivalry in this business, he would also need to see the fire reports and contracts etc that are or were in place for the work the report relates to and carry out a peer review. This is available under our Ministry contract at no cost to the school if the Ministry agrees.

Given the history of Council actions around the CPU and having a complaint BWO for the other areas the Ministry may want to consider meeting with the Council to discuss, and that would be better than them finding out via other means, but I suggest Garry has a look at the report first. Garry attended a meeting last year with all the then associated parties involved at that time.

Cheers Rob

Rob Wilson

Contract Manager

s 9(2)(a) OIA

ARGEST Building & Compliance
www.argest.com

From: Kirsten Dell-Hartgers [mailto:dhk@cashmere.school.nz]
 Sent: Monday, 11 February 2019 5:33 PM
 To: Rob Wilson
 Cc: Margaret Waller; Les Wilson
 Subject: Re: Cashmere High - id 340 - monthly fire alarm and sprinklr testing

Hi Rob

And so the saga of our fire alarm and sprinkler systems continues

Today we received an independent report advising that significant areas of the schools buildings are not protected by the system. The report asserts poor contractor performance eg mis-programming, devices mis-labelled, default signals routinely ignored and control

unit doors left open to prevent the sounding of audible alarms.

Further, the report suggests that new fire alarm systems have been installed in positions which do not comply with the required standards (placed at greater than allowable distances from walls, and in areas which would not comply for coverage). It was noted that the new Science block has a Certificate for Public Use issued by the Christchurch City Council, despite the afore-mentioned faults.

This situation is unacceptable, and needs to be remedied urgently. I'm aware that the Principal, Mark Wilson, has forwarded the report to Margaret Waller at the Ministry.

Kind regards

s 9(2)(a) OIA

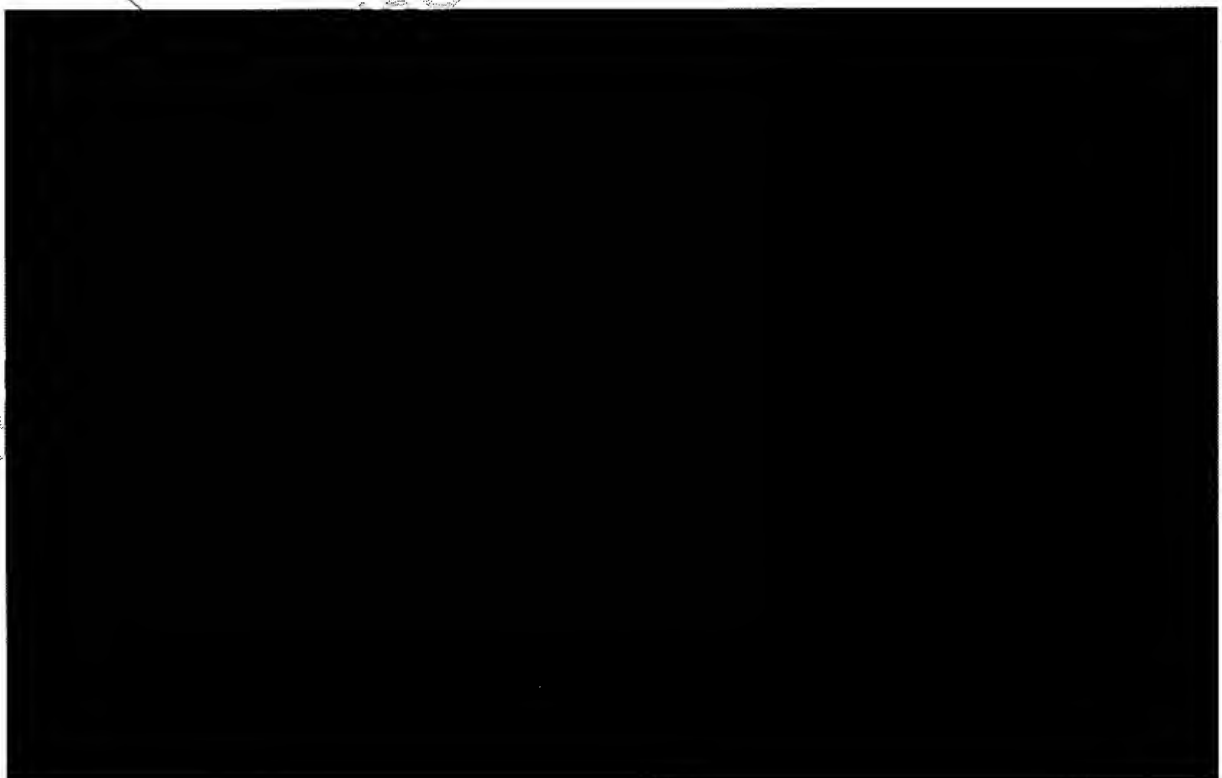
Kirsten Dell-Hartgers
Executive Officer

Cashmere High School | *Te Iringa O Kahukura*
[REDACTED] | www.cashmere.school.nz



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out of scope



From: Mark Wilson
To: Margaret Waller; Carmen Knobloch; Trevor Watt; wil@cashmere.school.nz; Kirsten Dell-Hartgers; Kellie Fenemor
Subject: Fwd: Fire Systems failures
Date: Tuesday, 12 February 2019 8:36:46 a.m.
Attachments: leighs_2c74e907-1f9a-4888-86e5-6d1d8c557ac8.png

Hi again Margaret

Email below from FFP in response to Carmen's email FYI...

Nga mihi nui

Mark Wilson
Principal

Cashmere High School | Te Iringa O Kahukura

172 Rose Street

Christchurch 8024

P +64 3 332 9129 | F +64 3 332 9126 | E wsm@cashmere.school.nz

www.cashmere.school.nz



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----- Forwarded message -----

From: Charlie Loughnan [REDACTED]
Date: Mon, 11 Feb 2019 at 20:34
Subject: Fwd: Fire Systems failures
To: wsm@cashmere.school.nz <wsm@cashmere.school.nz>

Good evening Mark.

I am on the understanding that Aethon are engaged by Leighs to complete fire alarm works in the school and are maintaining the system to comply with the warranty period.

Much of the area currently not operating was completed by Leighs within the past 12 months and fire systems previously operating have been disabled due to faults which have been unresolved. The conduct of Leighs contractor in disabling parts of the alarm in these areas and other areas where works were not undertaken is an unacceptable practice in an occupied building, creating significant risks for the staff and students.

We can provide many examples of this if required.

Kind regards

Charlie Loughnan
FFP Canterbury Ltd.

Sent from my phone. Please excuse my typos...

s 9(2)(a) OIA

----- Original message -----

From: [REDACTED]@leighsconstruction.co.nz>
Date: 11/02/19 5:51 PM (GMT+12:00)
To: Mark Wilson <wsm@cashmere.school.nz>, Margaret Waller
<Margaret.Waller@education.govt.nz>
Cc: Trevor Watt <[REDACTED]athfieldarchitects.co.nz>, Carla Smith
<smc@cashmere.school.nz>, Charlie Loughnan <[REDACTED]>, Kellie Fenemor
<fr@cashmere.school.nz>, [REDACTED]@leighsconstruction.co.nz>
Subject: RE: Fire Systems failures

Hi Margaret and Trevor

Would you be able to advise on what faults (if any) have been found to be related specifically to our contract works as we would like to resolve those immediately.

With regards the comments related to A Block corridor my understanding is that the hoarding constructed complies, as there are no students through A2to A4, but could you request Beca Fire engineer to review and advise if anything needs to be altered?

Thanks

s 9(2)(a) OIA

[REDACTED]
Project Manager

LEIGHS
CONSTRUCTION
leighsconstruction.co.nz

Leighs Construction Limited
Level 2, 219 High Street, Christchurch, 8011

PO Box 11191 | Christchurch, 8443

s 9(2)(a) OIA

M: [REDACTED]
E: [REDACTED]@leighsconstruction.co.nz
<https://www.leighsconstruction.co.nz>

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From: Mark Wilson <wsm@cashmere.school.nz>
Sent: Monday, 11 February 2019 4:20 p.m.

To: Margaret Waller <Margaret.Waller@education.govt.nz>; [REDACTED]
<[REDACTED]@leighsconstruction.co.nz>
Cc: Trevor Watt <[REDACTED]@athfieldarchitects.co.nz>; Carla Smith
<smc@cashmere.school.nz>; [REDACTED] ffp.co.nz; Kellie Fenemor
<ffr@cashmere.school.nz>

s 9(2)(a) OIA

Subject: Fwd: Fire Systems failures

Kia ora Margaret

Following up on my comments at our last PCG meeting we have now received the report (today) our school has initiated with FFP regards concerns with our school's fire alarm system... and it seems much worse than we thought.

In brief, almost half our school appears not to have fire alarms activated (i.e. coverage) and there are literally hundreds of faults in the system needing urgent attention.

While we as a school are keen to engage with FFP to start to get this resolved, I am aware this is more complex around the current contracts with Aethon. I would also question why the school could be required to organise or even financial pay for any of these identified issues when they are almost entirely the result of incomplete contract work related to the Ministry's CSR programme.

I will need to report this situation to our Board at the next meeting on Wednesday 20th February. I would also like to present to the Board with next step solutions to remedying this critical situation.

From our school's perspective I would like to request that you urgently engage with FFP to get these faults fixed and the school's fire alarm system fully activated across the school before we have a serious health and safety incident.

I look forward to your prompt reply to this situation.

Nga mihi nui

Mark Wilson

Principal

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----- Forwarded message -----

From: **Kirsten Dell-Hartgers** <dhk@cashmere.school.nz>

Date: Mon, 11 Feb 2019 at 16:07

Subject: Fwd: Fire Systems failures

To: Mark Wilson <wsm@cashmere.school.nz>

----- Forwarded message -----

From: **Charlie Loughnan** <[REDACTED]@ffp.co.nz>

Date: Mon, 11 Feb 2019 at 15:11

Subject: Fire Systems failures

To: Les Wilson <wil@cashmere.school.nz>

Cc: Andrew Bryant <[REDACTED]@ffp.co.nz>

s 9(2)(a) OIA

Good afternoon Les

Following our investigation of the alarm system last week, we have identified significant parts of the occupied school building are currently not protected by the fire alarm system. This prevents an alarm being detected in the buildings in order to start an evacuation, and prevents the operation of ancillary devices such as the releasing of held-open fire doors and shutting down of ventilation systems which would allow fire and smoke to spread through and beyond the firecells, and allowing smoke to obstruct egress paths and stairwells.

We have examined the fire alarm control unit and the programming configuration and note that large wired sections were disconnected, and other areas have significant numbers of detectors have been disabled, or left in a 'fault' condition. Our examination of the site showed that fire systems have had their alarms disabled

(Corrective Education) and the entire fire alarm system was enabled into a "test" status preventing any operation of the fire system from calling the Fire Service. It appears that mis-programming has taken place and it is suspected that the devices may be mis-labelled and mis-programmed which would cause a device which has activated not to be able to be located. It is noted that there have been fire activations where the activated detector was not located, and it is likely that this is the cause.

The fire call on the alarm system on 3/2/19 had been attended by the contractor, but instead of restoring the system to normal condition once they had attended, the contractor placed the system in a test status, disabling the "Fire" signal to summon the brigade at that point for the entire alarm system. The system has still not be restored to normal signalling at the writing of this email, over a week later.

Investigation of the signals of the site through the fire monitoring contractor, ADT, show testing of the systems is incomplete for the previous 12 month period with only 5 occasions where a monthly test signal has been successfully sent in the previous 12 months, with testing paperwork on site conflicting these by only having as few as three tests conducted. Signals for Defects are routinely ignored by the contractor and daily "Off-Normal" defect signals are sent via email to the contractor's designated faults address every day, but not attended to.

Fire system control units have been left with their doors open to prevent the control units from sounding audible alarms and alerting occupants of the building around the control unit that there is a problem with the unit. Leaving the control unit door open on the main fire alarm system prevents ancillary services such as HVAC systems being shut down or fire doors being closed in an emergency. These failures have been witnessed during fire alarm activations.

Walking through the site it is also obvious that detectors on the fire alarm system have been installed in positions which do not comply with NZS 4512:2010, the Standard for Fire Alarm Systems in New Zealand. Detectors are placed at greater than allowable distances from walls, and in areas which would not comply for coverage for the Type 4 fire alarm system. The school should also address overall design issues such as the use of photoelectronic smoke detectors in chemistry laboratories which are highly likely to cause false alarms through the normal use of the classrooms. It is noted that the new Science block has a Certificate of Public Use issued by the Christchurch City Council despite the faults noted.

The Corrective Ed building had the alarms from the fire sprinkler system turned off. The system has had a consistent series of Defect signals detailing loss of pressure in the system and was not attended for at least 5 days before the pressure reached the point where it signalled the brigade with a fire call on 8/1/19. That fire call was not attended to for 13 hours. Once attended the system was left in Defect state, until again on 11/1/19 the system signalled Fire again. It was subsequently left in Defect for a week, and then has had daily occurrences of defect signals, every day since, as yet unresolved by the contractor. The system had an unapproved automatic jockey pump installed in November 2014 by Wormald, although this appears to have suffered a catastrophic failure at some stage and the system has been re-plumbed since and now cannot be correctly tested.

The attached plan shows the status of the fire alarm system from our visit last week. It is of most concern that the fire system includes fully occupied areas in two-storey buildings and includes young persons and people with special needs.

The fire contractor is sub-contracted to Leighs Construction. It is our suggestion that these matters are addressed with Leighs to resolve without delay as this is their issue and they, in conjunction with the school, should consult with the fire engineer to ensure that the engineer is satisfied with the protection of the occupants of the building throughout the site and specifically in areas where occupancy is not fire separated between construction areas and school-occupied spaces such as the ground floor of A Block. Noted that the restriction of access in the corridors of A block may significantly impact on the egress routes available from the classroom areas and may restrict occupancy of the remainder of the block with the single means of escape available.


Given the failings of the contractor to date, it is our recommendation that they operate in a fully informed manner to the school at all times, identifying the areas operational and disabled and any impairment is correctly notified through the use of notices to the school for their approval to disable parts of the system and through on-site notices on the control unit, both in accordance with Appendix K of NZS 4512:2010. These are standard practices in the fire industry and must be adhered to. It is also our recommendation that the site be fully surveyed by FFP to ascertain the current operational capacity of the alarm, and to identify any areas where remedial action is required. Any areas to be handed over should also be independently inspected prior to acceptance of the building by the school.


I would be pleased to meet with the school management or Board to discuss these matters in person and discuss a viable path forward for resolution of these matters.

Kind regards

CHARLIE LOUGHNAN

Corporate Services Manager


 s 9(2)(a) OIA

@ffp.co.nz

2 Halls Place

PO Box 22-189

Christchurch 8140

03 366 7889 

From: [Mark Wilson](#)
To: [Kane Lacey](#)
Cc: [Mark Riddell](#); [Carmen Knobloch](#); [Matt Russell](#); [Kirsten Dell-Hartgers](#); [Margaret Waller](#); [Garry Van der Krogt](#); [Matthew Webby](#); [Kellie Fenemor](#)
Subject: Re: Fire Alarm Update
Date: Thursday, 14 February 2019 9:25:31 a.m.
Attachments: [image001.png](#)

Hi Kane

In the interests of health and safety, yes the school is happy for your staff to be working in S Block to get this work completed.

Please note that this assumes that your workers will not be working in active classrooms, will be seeking to minimise disruptions (e.g. noise) and keeping public spaces clear of hazards.

Nga mihi nui

Mark Wilson
 Principal

Cashmere High School | Te Iringa O Kahukura

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On Thu, 14 Feb 2019 at 09:15, Kane Lacey <[\[REDACTED\]@aethon.co.nz](mailto:[REDACTED]@aethon.co.nz)> wrote:

Hi All,

Yesterday we made good progress in isolating the issue in S block. We found the cause of the issue is an AZM module. This operates some of the heat detection in the S block roof space.

It wasn't practical to follow our original plan to re-run a temporary loop in S block roof space, due to the fact we haven't been able to physically locate the AZM module yet, meaning we couldn't get a new loop connected before the module.

Today we will find the AZM module in the roof space, disconnect and remove it, and then reboot the loop. This will leave only the S block ceiling space unprotected. I have already ordered a new AZM module, as soon as it arrives we will install. Expected time on this is 5 working days.

Can the school please let me know if you are happy with our staff working upstairs in the S block corridor today? If this is acceptable then I expect to be done with this works by 1700 today.

Thanks,

Kane Lacey

Director

P: [REDACTED]

M: [REDACTED]

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W: aethon.co.nz

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From: Garry Van der Krogt
To: "Kane Lacey"; Mark Riddell; Carmen Knobloch; Matt Russell; Mark Wilson; Kirsten Dell-Hartgers; Margaret Waller; Matthew Webby; Kellie Fenemor
Subject: [SPF: Suspicious Sender] RE: Fire Alarm Update
Date: Thursday, 14 February 2019 9:28:15 a.m.
Attachments: [image003.png](#)
[image004.png](#)
[S Block First Floor.pdf](#)

Hi Kane,

Looking at S block asbuilt the logical location would be in the callpoint in the stairs.

Do you have these drawings?

Regards

Garry

Garry Van Der Krogt
 Fire Alarm and Compliance Services Manager
 PO Box 13324
 Unit 2/433 St Asaph Street
 Christchurch

Office 03 3773757 s 9(2)(a) OIA

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From: Kane Lacey [mailto: [REDACTED]@aethon.co.nz]
Sent: Thursday, 14 February 2019 9:16 AM
To: Mark Riddell; Carmen Knobloch; Matt Russell; Mark Wilson; Kirsten Dell-Hartgers; Margaret Waller; Garry Van der Krogt; Matthew Webby; Kellie Fenemor
Subject: Fire Alarm Update

Hi All,

Yesterday we made good progress in isolating the issue in S block. We found the cause of the issue is an AZM module. This operates some of the heat detection in the S block roof space.

It wasn't practical to follow our original plan to re-run a temporary loop in S block roof space, due to the fact we haven't been able to physically locate the AZM module yet, meaning we couldn't get a new loop connected before the module.

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Can the school please let me know if you are happy with our staff working upstairs in the S block

corridor today? If this is acceptable then I expect to be done with this works by 1700 today.

Thanks,

Kane Lacey
Director

P: [REDACTED]
M: [REDACTED]
W: aethon.co.nz

s 9(2)(a) OIA

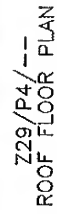
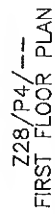
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From: [Kane Lacey](#)
To: [Kirsten Dell-Hartgers](#)
Cc: [Margaret Waller](#); [Mark Wilson](#); [Kellie Fenemor](#)
Subject: Re: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm System
Date: Wednesday, 20 February 2019 2:15:03 p.m.
Attachments: [image001.png](#)
[image003.png](#)
[image005.png](#)

Hi Kirsten,

Correct, no need for this now the smoke detection is working in these classrooms.

Thanks,

Kane Lacey
 Director

P: [REDACTED] s 9(2)(a) OIA
 M: [REDACTED]
 W: aethon.co.nz

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From: Kirsten Dell-Hartgers <dhk@cashmere.school.nz>
Date: Wednesday, 20 February 2019 at 9:51 AM
To: Kane Lacey [REDACTED]@aethon.co.nz>
Cc: Margaret Waller <Margaret.Waller@education.govt.nz>, Mark Wilson
 <wsm@cashmere.school.nz>, Kellie Fenemor <frr@cashmere.school.nz>
Subject: Re: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm System

Hi Kane

Thanks for this.

I presume it means there's no need for the stand-alone battery operated smoke detectors recommended by Fadi?

Kirsten

Kirsten Dell-Hartgers
 Executive Officer

s 9(2)(a) OIA

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Image removed by sender.



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On Wed, 20 Feb 2019 at 09:00, Kane Lacey <[REDACTED]@aethon.co.nz> wrote:

Hi All,

All the alarms are now working in S block.

The Caretakers shed is back online however it has a fault we need to investigate further, will look into this today and report.

There is still a number of faults on the panel from various small issues that we will fix over the next couple of days. Once the panel is back to normal with no faults we will test all the zones to ensure everything is working correctly and issue a survey report. I would estimate this will be provided sometime next week.

Thanks,

Kane Lacey
Director

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W: aethon.co.nz

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From: Margaret Waller <Margaret.Waller@education.govt.nz>

Date: Tuesday, 19 February 2019 at 4:28 PM

To: Kane Lacey <[REDACTED]@aethon.co.nz>, Kirsten Dell-Hartgers <dhk@cashmere.school.nz>

Cc: Kellie Fenemor <frr@cashmere.school.nz>, Mark Wilson <wsm@cashmere.school.nz>, Fadi

Jirjees <[\[REDACTED\]@beca.com](mailto:[REDACTED]@beca.com)>, Carmen Knobloch

<[\[REDACTED\]@leighsconstruction.co.nz](mailto:[REDACTED]@leighsconstruction.co.nz)>, Matthew Webby

<mattheww@athfieldarchitects.co.nz>, <[\[REDACTED\]@argest.com](mailto:[REDACTED]@argest.com)>

s 9(2)(a) OIA

[REDACTED]@argest.com>, David Hobern <David.Hobern@education.govt.nz>, Trevor Watt <trevor@athfieldarchitects.co.nz>, Les Wilson <wil@cashmere.school.nz>, Mathew Jarvis <[REDACTED]@leighsconstruction.co.nz>

Subject: RE: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm System

Hi All

I asked Fadi to call Kane to discuss technical solutions which he has summarised below. The temp smoke detectors will be in block S1-S3 & the caretakers shed if the problem is not found this afternoon/evening.

Thanks
Margaret

From: Fadi Jirjees [mailto:[REDACTED]@beca.com]
Sent: Tuesday, 19 February 2019 2:51 p.m.
To: Margaret Waller <Margaret.Waller@education.govt.nz>
Cc: Andrew Jackson (CHC) [REDACTED]@beca.com>
Subject: Cashmere High - Fire Alarm Fault

s 9(2)(a) OIA

Hi Margaret,
I have contacted Kane / Atheon who briefed me with the current status.

- The source of the fault is somehow contained with a group of less than 20 detectors and manual call points
- The detectors range between heat in ceiling spaces and smoke in room space
- Atheon are working now on the heat detectors in ceiling space and have good confident that they will have them back in order tonight. So no further need to linear heat detector
- It could take another 2 -3 days to have the rest of the system operating

What I recommended, that tomorrow morning and before 9am (the starting of the school) Atheon install stand-alone battery operated smoke detectors in the Science Building as a temporary measure. Detectors to cover the spaces affected by the fault. As I understood, there will about 10 or so of them.

I see this is reasonable for this short period of time. Please let us know if you need more clarification.

Kind Regards

Fadi Jirjees
Associate - Fire
CPEng (Fire), IntPE, MIPENZ
Beca Ltd
267 High Street, Christchurch 8011

s 9(2)(a) OIA

Margaret Waller | Delivery Manager - Contractor | CSR Programme

s 9(2)(a) OIA

From: Kane Lacey [mailto:[REDACTED]]

s 9(2)(a) OIA

Sent: Monday, 18 February 2019 1:33 p.m.

s 9(2)(a) OIA

To: Kirsten Dell-Hartgers <dhk@cashmere.school.nz>; Margaret Waller
<Margaret.Waller@education.govt.nz>

Cc: Kellie Fenemor <frr@cashmere.school.nz>; Mark Wilson <wsm@cashmere.school.nz>; Fadi Jirjees
<[REDACTED]@beca.com>; Carmen Knobloch <[REDACTED]@leighsconstruction.co.nz>; Matthew
Webby <mattheww@athfieldarchitects.co.nz> <[REDACTED]@argest.com>; David Hobern
<David.Hobern@education.govt.nz>; Trevor Watt <trevor@athfieldarchitects.co.nz>; Les Wilson
<wil@cashmere.school.nz>; Mathew Jarvis <mathew.jarvis@leighsconstruction.co.nz>

Subject: Re: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm
System

Hi All,

No update on status from last week - S1-S3 and caretakers shed are still isolated while we work on the
problem.

We were there on Friday and Saturday but unable to find the issue yet. It is a process of elimination, so
could take another day.

I will update again when fully resolved.

Thanks,

Kane Lacey
Director

P: [REDACTED] s 9(2)(a) OIA
M: [REDACTED]
W: aethon.co.nz

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From: Kirsten Dell-Hartgers <dhk@cashmere.school.nz>

Date: Monday, 18 February 2019 at 12:07 PM

To: Margaret Waller <Margaret.Waller@education.govt.nz>

Cc: Kane Lacey <[REDACTED]@aethon.co.nz>, Kellie Fenemor <frr@cashmere.school.nz>, Mark
Wilson <wsm@cashmere.school.nz>, Fadi Jirjees <[REDACTED]@beca.com>, Carmen Knobloch
<[REDACTED]@leighsconstruction.co.nz>, Matthew Webby
<mattheww@athfieldarchitects.co.nz>, "[REDACTED]@argest.com"
<[REDACTED]@argest.com>, David Hobern <David.Hobern@education.govt.nz>, Trevor Watt
<trevor@athfieldarchitects.co.nz>, Les Wilson <wil@cashmere.school.nz>, Mathew Jarvis
<mathew.jarvis@leighsconstruction.co.nz>

Subject: Re: FW: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm System

Hi Margaret

s 9(2)(a) OIA

[REDACTED] and having checked my email this morning, I can't see an update from Kane on Friday or since.

Do you know what protection was in place over the weekend?

I've been advised this morning that the said areas are still unprotected.

Kind regards

Kirsten Dell-Hartgers
Executive Officer

Cashmere High School | Te Iringa O Kahukura

[REDACTED] | www.cashmere.school.nz

Error! Filename not specified.

s 9(2)(a) OIA

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On Fri, 15 Feb 2019 at 07:38, Margaret Waller <Margaret.Waller@education.govt.nz> wrote:

Hi Mark

From this email I understand the bulk of the affected areas are back under proper fire protection. As Aethon will be working in the S1-S3 classroom area we can attribute the continuous surveillance role to them. Kane can you please to give an update at lunchtime today so we can understand what buildings will still be at risk over the weekend & what hours your staff will be working over the weekend.

Thanks
Margaret

Margaret Waller | Delivery Manager - Contractor | CSR Programme

s 9(2)(a) OIA

From: Kane Lacey [mailto:[REDACTED]@aethon.co.nz]

s 9(2)(a) OIA

Sent: Thursday, 14 February 2019 10:03 p.m.

To: Kellie Fenemor <frr@cashmere.school.nz>; Mark Wilson <wsm@cashmere.school.nz>

Cc: Margaret Waller <Margaret.Waller@education.govt.nz>; Carmen Knobloch

<[REDACTED]@leighsconstruction.co.nz>; Matthew Webby

<mattheww@athfieldarchitects.co.nz>; Kirsten Dell-Hartgers <dhk@cashmere.school.nz>;

[REDACTED]@argest.com; Trevor Watt <trevor@athfieldarchitects.co.nz>; David Hobern

<David.Hobern@education.govt.nz>; Les Wilson <wil@cashmere.school.nz>; Mathew Jarvis

[REDACTED]@leighsconstruction.co.nz>; Carmen Knobloch

<[REDACTED]@leighsconstruction.co.nz>

s 9(2)(a) OIA

Subject: Re: FW: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm System

Hi All,

All blocks are now back online with the exception of S1-S3 classrooms, roof space and the caretakers shed. There is still a issue in the roof space here that we will need to investigate further tomorrow.

I would expect to have the system back to full operation by tomorrow evening.

Regards,

Kane

From: Kellie Fenemor <kfr@cashmere.school.nz>

Sent: Thursday, February 14, 2019 1:49:26 PM

To: Mark Wilson

Cc: Margaret Waller; Kane Lacey; Carmen Knobloch; Matthew Webby; Kirsten Dell-Hartgers; [REDACTED] <[\[REDACTED\]@argest.com](mailto:[REDACTED]@argest.com)>; Trevor Watt; David Hobern; Les Wilson

Subject: Re: FW: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm System

Hi all,

As per discussions yesterday, we are expecting that Kane has notified the fire department via the appropriate form of the current issues with areas of the school isolated from our alarm system. We haven't received confirmation that it has been done. Margaret I'm not sure if you have.

If Kane is unable to fix the problem in S block (excluding the heat sensors in the roof) by the end of today, according to Fadi's email, staff will need to be informed. In this case, as Mark spoke to yesterday, we would need someone from the Ministry here with the appropriate level of knowledge to be able to appropriately and accurately explain the situation to our staff at 8:30am tomorrow during our staff briefing and to answer any questions they may have.

For your information, we have informed our insurers of our current predicament as discussed yesterday.

Kind regards,
Kellie

On Thu, 14 Feb 2019 at 10:44, Mark Wilson <wsm@cashmere.school.nz> wrote:

Hi Margaret

Thanks for this email, however, from my understanding of the other emails our school currently does not need to implement any of these recommendations.
This is based on Kane confirmation that the school's fire alarm systems are now all operating, and the only area of concern (S B Lock ceiling isolated) is not a safety concern and will be resolved in five days time.

Nga mihi nui

Mark Wilson
Principal

Cashmere High School | Te Iringa O Kahukura
172 Rose Street
Christchurch 8024
P +64 3 332 9129 | F +64 3 332 9126 | E wsm@cashmere.school.nz
www.cashmere.school.nz

Error! Filename not specified.

On Thu, 14 Feb 2019 at 09:53, Margaret Waller <Margaret.Waller@education.govt.nz> wrote:

Hi Mark

Below is the procedures that Beca as fire engineers recommend to be followed until the fire alarms are up & running again.

Thanks
Margaret

Margaret Waller | Delivery Manager - Contractor | CSR Programme

s 9(2)(a) OIA

From: Fadi Jirjees [mailto:[\[REDACTED\]@beca.com](mailto:[REDACTED]@beca.com)]

s 9(2)(a) OIA

Sent: Thursday, 14 February 2019 9:13 a.m.

To: Margaret Waller <Margaret.Waller@education.govt.nz>

Cc: Andrew Jackson (CHC) <[\[REDACTED\]@beca.com](mailto:[REDACTED]@beca.com)>

Subject: Cashmere high School - Recommended Procedure during the Fixing of the Fire Alarm System

Hi Margaret,

Following our meeting this morning discussing the case around the recent faults in the fire alarm panel at Cashmere High School, we summarise below our understanding of its status and advise the school, and MoE, on the risks expected and the precautions that can be undertaken to sustain its operation until the faults are fixed.

We have also read through FFP findings of their site investigation.

- The first faults signal was initiated on the 3rd February 2019
- The fault escalated in the days followed and resulted with Atheon isolating one major loop cable that covers Blocks A, the new Science Block and the far north west cluster of buildings leaving them with no coverage and connection to Fire Brigade.
- The Type 4 smoke detection system in these buildings is a core fire safety system for their escape routes design, i.e. number, length width etc., to achieve compliance with NZBC.
- Atheon have since been working to identify and fix faults but the large loop size and some outsourced equipment ordered have complicated and delayed the loop's fixing.
- Atheon advised this morning that they are trying a fast fix tonight which could bring 95% of the loop's peripherals within the occupied spaces back to life but not the heat detectors in the ceiling/roof spaces of Block S only

Our recommended actions toward this technical issue are classified as to the time taken to rectify the issue and as follows;

1. Short term isolation: This entails the system will be fixed within the next 24 hours
 - Notify EFNZ
 - Notify Insurer
 - Atheon to strictly follow the system's isolation and notification procedure given in Appendix K of NZS 4512
 - Update Staff with the case and inform them to be extra vigilant for any possible fire incident
2. Medium term isolation: This entails the fault can only be fixed over the weekend and be up and running before 8am Monday the 18 February 2019.
 - All the above in (1)
 - Engage a third party to provide continuous watching and security service for the affected blocks during occupation of their normal operation. The watching should come into play for Friday morning school hours and the weekend to avoid leaving the buildings unprotected during the weekend.
3. Long term isolation: This entails the system cannot be fixed before 8am Monday 18 February
 - All the above in (2)
 - Install temporary heat detectors, could be "linear wire" in concealed spaces and connect to fire alarm panel.

- All other peripherals and interfaces with other building services are to be active and back to life after Wednesday's night trial

In this correspondence, we have not commented on other issues Chubb raised during their investigation, such as Athoen's level of workmanship, technical capability, resource capacity and site-wide systems' testing and maintenance duties during construction for site BWof, which can be subject of a separate discussion with the Main Contractor.

Trust the above is satisfactory for the School to resume their operation during this time period.

Kind Regards

Fadi Jirjees

Associate - Fire

CPEng (Fire), IntPE, MIPENZ

Beca Ltd

267 High Street, Christchurch 8011



s 9(2)(a) OIA



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--
Kellie Fenemor
Deputy Principal

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172 Rose Street

Christchurch 8024

P +64 3 332 9129 | F +64 3 332 9126 | E frr@cashmere.school.nz

www.cashmere.school.nz

Error! Filename not specified.

Released under the Official Information Act 1982

From: Kirsten Dell-Hartgers
To: Margaret Waller
Subject: Water treatment and fire protection
Date: Wednesday, 27 February 2019 10:45:42 a.m.

Hi Margaret

out of scope

With regard to the fire alarms, we have received a letter from NZ Fire Service about the unacceptable number of false callouts in the last 12 months, most recently the one on 31/12, two on 25/1 and one on 3/2. I haven't heard any more from Kane since last Wednesday when he said the remaining faults on the panel would be fixed over the next few days. Les advises there are still 100+ faults on the panel and as far as we're aware S block roof and the groundsman's shed are still isolated. In fact the smoke detector which was removed from the groundsman's shed has not been put back yet. I have also not heard whether the replacement AZM valve has been installed yet.


Are you confident the school is adequately protected? We have a health and safety committee meeting this afternoon and I'll need to provide an update on this.

Kind regards

Kirsten Dell-Hartgers
Executive Officer

s 9(2)(a) OIA

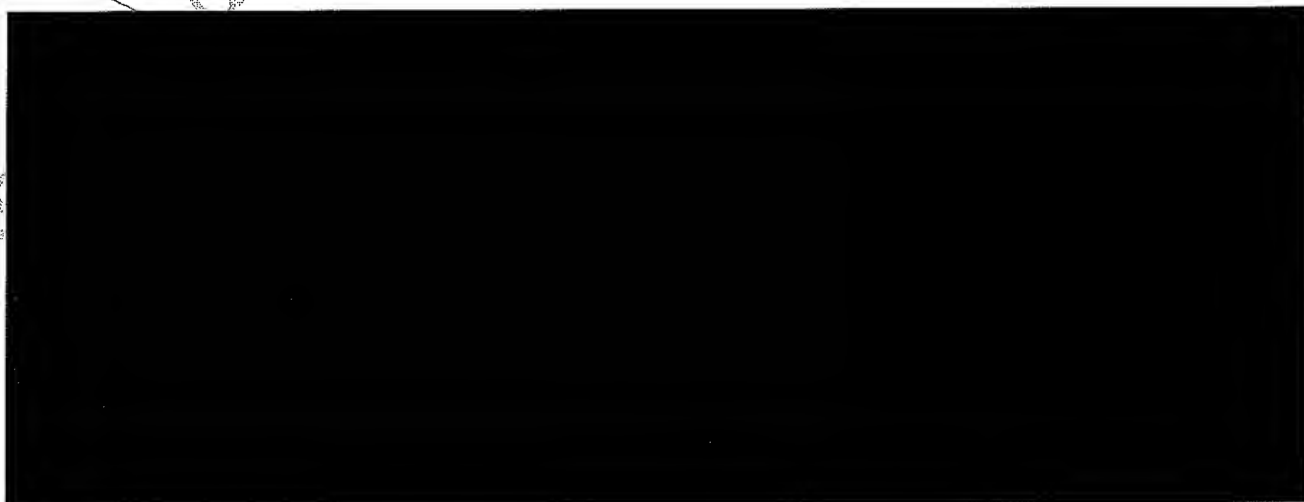
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 | www.cashmere.school.nz



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out of scope



From: Kirsten Dell-Hartgers
To: Margaret Waller
Cc: Mark Wilson
Subject: Fwd: False alarms
Date: Thursday, 28 February 2019 1:55:48 p.m.

s 9(2)(a) OIA Hi Margaret

Further to the email I sent yesterday, we had another fire callout early this morning to the Conductive Ed building.

As Charlie from FFP [REDACTED], he contacted Les. Please see his comments below which imply that the callout could have been prevented.

At what point can we look at engaging someone else to sort these issues out?

Kind regards

s 9(2)(a) OIA

Kirsten Dell-Hartgers
 Executive Officer

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 [REDACTED] | www.cashmere.school.nz



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----- Forwarded message -----

From: Les Wilson <wil@cashmere.school.nz>
Date: Thu, 28 Feb 2019 at 12:55
Subject: Fwd: False alarms
To: Kirsten Dell-Hartgers <DHK@cashmere.school.nz>

----- Forwarded message -----

From: Charlie Loughnan <[\[REDACTED\]@ffp.co.nz](mailto:[REDACTED]@ffp.co.nz)> s 9(2)(a) OIA
Date: Thu, 28 Feb 2019 at 09:09
Subject: RE: False alarms
To: Les Wilson <wil@cashmere.school.nz>

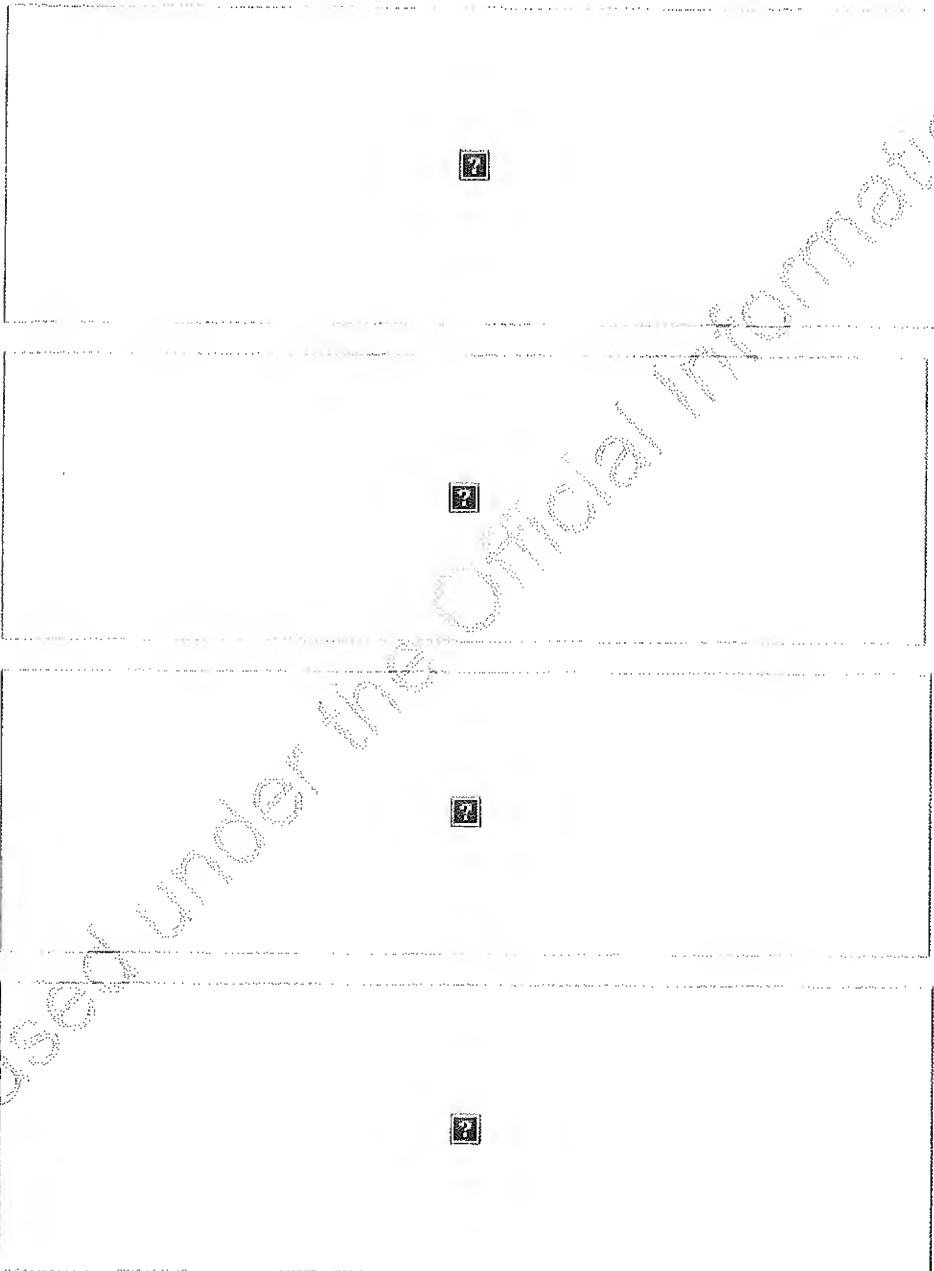
s 9(2)(a) OIA

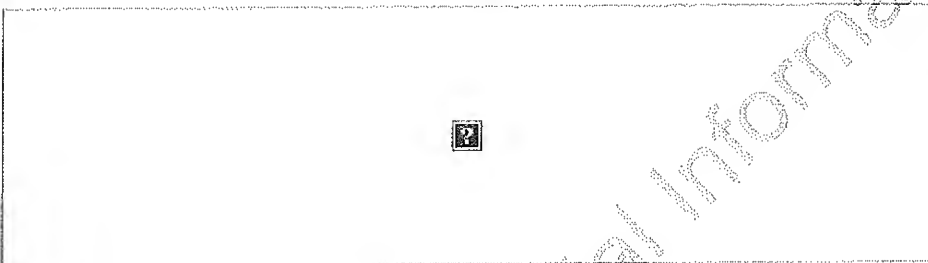
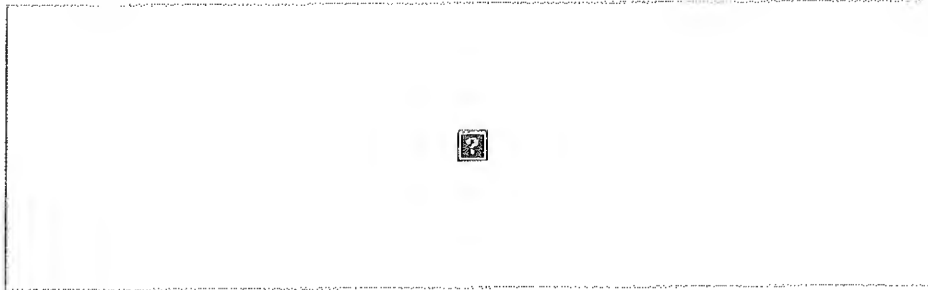
Thanks Les. [REDACTED] but I am sure you have had better mornings.

What I can tell you is that although this was vehemently denied by Aethon in the meeting, the sprinkler system has been sitting in and out of a low pressure defect and this has been emailed to them by ADT every day at

least twice a day, every day this month (and I have only looked at this month). I have looked through the records this morning to confirm this. When we sat in the meeting I did advise they needed to check this because it will activate again as a cold morning hits, and I think today you have got a cold enough morning.

I note they isolated the system on both 19 and 20 Feb, but did not fix the defect at the time. Noted no test signals recorded on the system this month. The OFF NORMAL signal is a reminder signal to advise that the system is in defect – defect signals are required to be responded to "without delay" so we would expect to be on site within the hour to investigate a defect. Noted they have not responded to any of these (apart from the 19th and 20th) to prevent the fire call.





Good luck.

Charlie

From: Les Wilson [mailto:wil@cashmere.school.nz]

Sent: Thursday, 28 February 2019 7:04 a.m.

To: Charlie Loughnan <Charlie@ffp.co.nz>

Subject: Re: False alarms

Hi Charlie

s 9(2)(a) OIA

Yes another one

Conductive ed sprinkler system again

Les

s 9(2)(a) OIA

On Thu, 28 Feb 2019, 6:59 AM Charlie Loughnan, [\[REDACTED\]@ffp.co.nz](mailto:[REDACTED]@ffp.co.nz) wrote:

s 9(2)(a) OIA

Hi Les. Another false alarm this morning [REDACTED] I hope all is going ok.
Let me know if you need any further oversight here.

Kind regards

Charlie Loughnan

FFP Canterbury Ltd.

Sent from my phone. Please excuse my typos...

Released under the Official Information Act 1982

From: Manish Kumar
To: Rob Wilson; Katerina Beattie; "Simeon Wilson"
Cc: "Trevor Watt"; Matthew Webby; Hayden Westbury; Garry Van der Krogt; Carmen Knobloch; "Kellie Fenemor"; Kirsten Dell-Hartgers; Les Wilson
Subject: RE: Cashmere High School - Fire Services Engagement COUNCIL PHONE CALL UPDATE
Date: Tuesday, 9 July 2019 2:17:56 p.m.
Attachments: image005.png
 image001.png
 Letter for Co ED.pdf
 Pressure test 6 july.pdf
 Pressure test 9 july.pdf
 Commissioning check sheet.pdf
 Sprinkler system monthly test.pdf

Hi Rob & Kat

Please find attached our assessment for sprinkler system to Co ED building.

Please feel free to contact if any further query.

Regards

Manish Kumar
 Ph: 021 08182833
 Email: manish@southpacificfire.co.nz
 Address : Unit 2, 328 Tuam Street, Christchurch 8011
 PO Box 10196, Philipstown, Christchurch 8145

(MBM Fire Protection, part of South Pacific Fire Protection Group)



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From: [REDACTED]@argest.com>
Sent: Thursday, 4 July 2019 1:45 PM
To: 'Katerina Beattie' <Katerina.Beattie@education.govt.nz>; 'Simeon Wilson' <[REDACTED]@OptimusFire.co.nz>; Manish Kumar <Manish@southpacificfire.co.nz>
Cc: 'Trevor Watt' <trevor@athfieldarchitects.co.nz>; Matthew Webby <mattheww@athfieldarchitects.co.nz>; Hayden Westbury [REDACTED]@argest.com>; Garry Van der Krogt [REDACTED]@argest.com>; Carmen Knobloch <[REDACTED]@leighsconstruction.co.nz>; 'Kellie Fenemor' <frf@cashmere.school.nz>; Kirsten Dell-Hartgers <dhk@cashmere.school.nz>; Les Wilson <wil@cashmere.school.nz>
Subject: RE: Cashmere High School - Fire Services Engagement COUNCIL PHONE CALL UPDATE

Hello all,

I have just had a phone call from the Council, they are going to send me an email asking that the 7 bold items are completed by Friday the 12th, once they have that and a statement saying the systems are compliant and operational (from an IQP) they will advise that the RIL/BWOF as already

s 9(2)(a) OIA

issued is ok, that will enable them to process the CPU application, so no other party need to approach the Council at all.

s 9(2)(a) OIA

Cheers Rob

Rob Wilson
Contract Manager

ARGEST Building & Compliance
www.argest.com

From: Katerina Beattie [<mailto:Katerina.Beattie@education.govt.nz>]
Sent: Thursday, 4 July 2019 11:47 AM
To: 'Simeon Wilson'; 'Manish Kumar'
Cc: 'Trevor Watt'; Matthew Webby; Hayden Westbury; Garry Van der Krogt; Rob Wilson; Carmen Knobloch; 'Kellie Fenemor'; Kirsten Dell-Hartgers; Les Wilson
Subject: Cashmere High School - Fire Services Engagement

Hi Simeon and Manish,

Thanks for your time today to go through the outstanding issues around the BWOFF for CHS. I have attached the report from Argest and also the previous letter from Beca regarding the sprinkler system in Conductive Ed.

As mentioned by Garry, he will send through all other information to assist in the programming/as built of the current site.

Additionally if you could follow up with the Council for us on their requirements for the BWOFF and the likelihood of gaining this on completion of the bold items would be great.

I will forward through an engagement contract as soon as possible to complete these works. Please let me know if there is anything else from the MoE side that you may need.

Thanks

s 9(2)(a) OIA

Kat Beattie | Delivery Manager - Contractor | EIS - Capital Works

48 Hereford Street, Christchurch

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We get the job done *Ka oti i a matou nga mahi*
We are respectful, we listen, we learn *He ropu manaaki, he ropu whakarongo, he ropu ako matou*
We back ourselves and others to win *Ka manawanui ki a matou, me etahi ake kia wikitoria*
We work together for maximum impact *Ka mahi ngatahi mo to tukinga nui tonu*

Great results are our bottom line *Ko nga huanga tino pai a matou wheinga mulunga*



MINISTRY OF EDUCATION
TE TAHUHU O TE MĀTAURANGA



(MBM Fire Protection Ltd is part of South Pacific Fire Protection Group Ltd)

Auckland Christchurch Dunedin Queenstown

To Whom it may concern,

Date: 9 July 2019

Cashmere High School, Christchurch.

Response to building warrant fitness inspection by Argest on 20 June 2019.

SS 1 Sprinkler System

1. Con Ed Sprinkler In Defect on arrival and still in defect on departure
2. Installation and DBA Gauges reading differently (300 KPA difference)

Summary:

MBM Fire being engaged to investigate and resolve above mentioned defects on fire sprinkler system for building Con Ed Block. At arrival we noted sprinkler system is sitting on defect. And we couldn't find evidence on site if this system is being tested as required for SS1. To investigate and resolve the issue, following measures been followed:

- **Commissioning check sheet:** we completed our standard commissioning check sheet to audit the operation and functionality of this sprinkler system. Check sheet attached. Followings has been noted and rectified:
 1. Faulty installation gauge – Replaced
 2. Faulty DBA gauge – Replaced
 3. Faulty FSI gauge – Replaced
 4. Boost pressure sign- new sign installed
 5. Check system pressure- system pumped up to normal
- **Pressure test:** To make sure there is not leak on sprinkler system we conducted 2 separate pressure tests above alarm valve. First test conducted dated 6-7 2019 @ 1600 KPA for 1 hour. Pass results attached. 2nd test conducted on 9 -07-2019 @ 1600 KPA for 2 hours. Pass results attached.
We suggest monitoring system pressure for couple weeks, if pressure drops might pay to check fire alarm valve seals and gasket etc.
- **Monthly testing:** we completed monthly test by dropping system pressure to defect and test fire. Copy of test sheet attached. As we are not receiving page from ADT monitoring, we contacted ADT via phone to confirm if they received test fire and answer is 'Yes'.

Conclusion:

I am pleased to confirm that Co ED block sprinkler system PFA#513652 is fully functional & operational as required by NZS4541.



(MBM Fire Protection Ltd is part of South Pacific Fire Protection Group Ltd)

Auckland Christchurch Dunedin Queenstown

Please do not hesitate to contact if any further information required.

Sincerely,

A handwritten signature in black ink, appearing to read 'Manish Kumar', is written over a faint, diagonal watermark that spans the lower half of the page.

Manish Kumar

Operations Manager

South Pacific Fire Protection Group Ltd

Mob: 02108182833



Pressure Test Sheet

AIR TEST / WATER TEST (CIRCLE ONE)
~~1ST FIX / 2ND FIX~~ (CIRCLE ONE)

DATE: 6-07-2019
 PROJECT: Cashmere High School.
 AREA TESTED: Co Ed Block.
 INLETS TESTED (BHI/FSI):

SYSTEM PRESSURE TESTED TO: 1600 KPA
 START DATE: 6-07-2019 START TIME: 12-30 PM
 END DATE: 6-07-2019 END TIME: 1-30 PM
 PRESSURE HELD FOR 01 HOURS: 1600 KPA

INSTALLATION CONFORMS TO ACCEPTED PLANS:

YES/NO N.A.

EQUIPMENT USED IS APPROVED:

YES/NO

RESULTS:

PASS/FAIL

RETEST REQUIRED:

NO/YES

REASONS FOR FAIL / NOTES:

Tester
 SIGNED INSTALLER: [Signature]

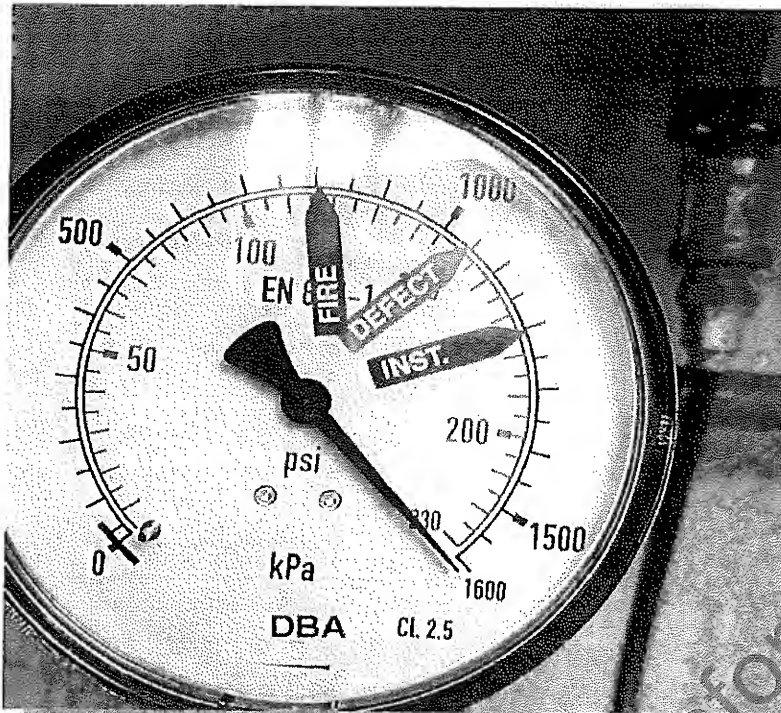
NAME: Manish Kumar

COMPANY: South Pacific Fire Protection Ltd.

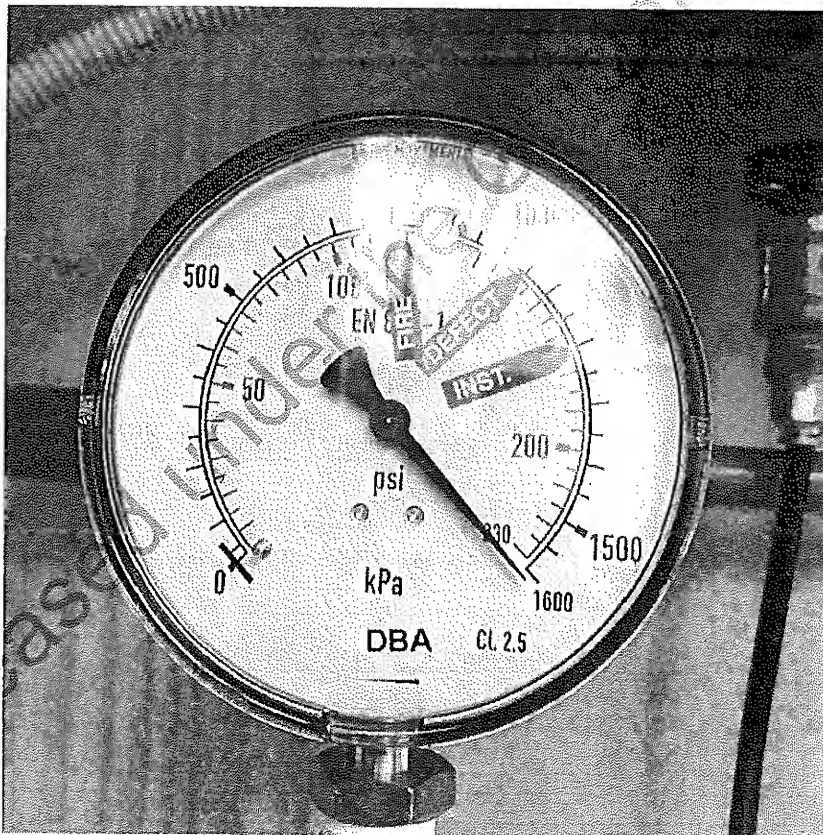
witness
 ACCEPTED BY CLIENT: [Signature]

NAME: Ben Spiers

COMPANY: AI Fitters



Pressure at 12:30



→ Pressure @ 1:30.



Pressure Test Sheet

AIR TEST / WATER TEST (CIRCLE ONE)
 1ST FIX / 2ND FIX (CIRCLE ONE)

DATE: 09/07/2019
 PROJECT: Cashmere High School
 AREA TESTED: Co Ed Block
 INLETS TESTED (BHI/FSI):

SYSTEM PRESSURE TESTED TO: 1600 KPA
 START DATE: 9/7/19 START TIME: 8:45 AM
 END DATE: 9/7/19 END TIME: 10:45 AM
 PRESSURE HELD FOR 2 hrs HOURS: 1600 KPA

INSTALLATION CONFORMS TO ACCEPTED PLANS:

YES/NO YES

EQUIPMENT USED IS APPROVED:

YES/NO YES

RESULTS:

PASS/FAIL PASS

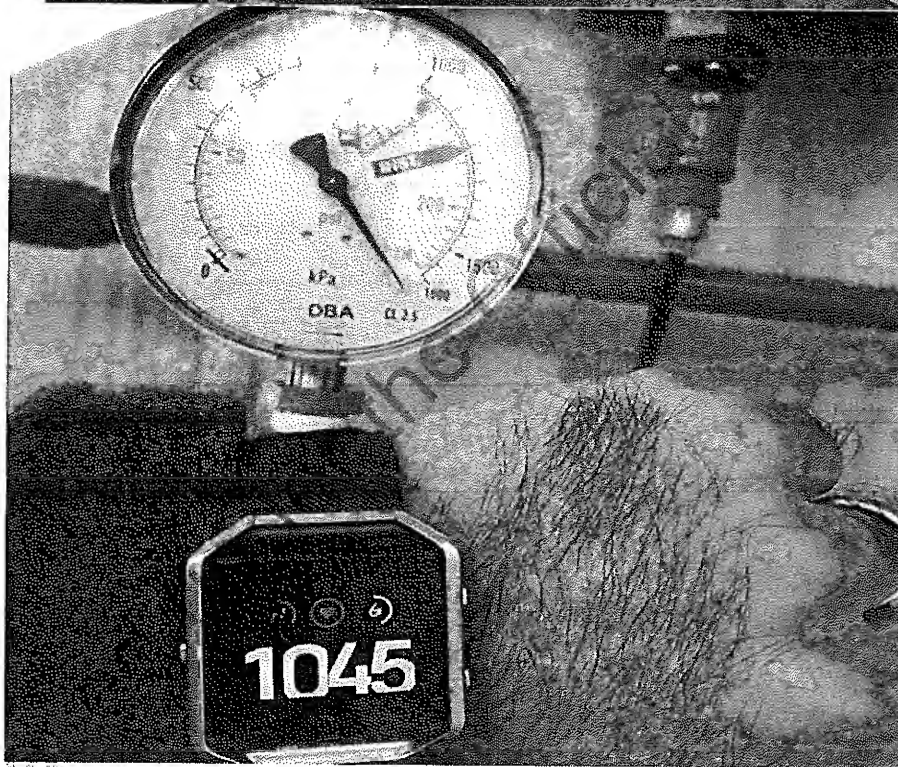
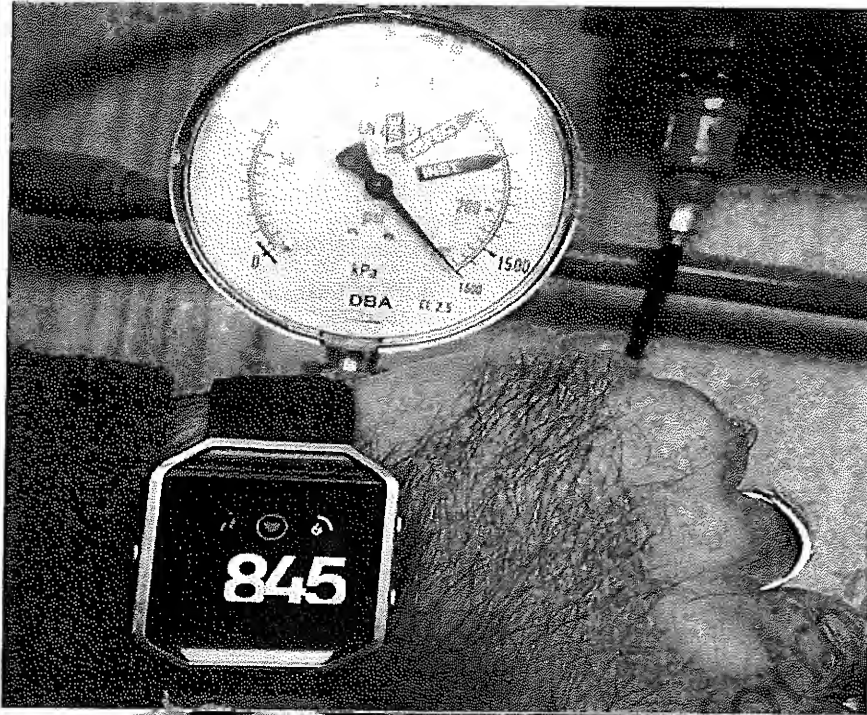
RETEST REQUIRED:

NO/YES NO

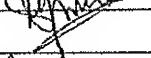
REASONS FOR FAIL / NOTES:

Tester
 SIGNED INSTALLER: [Signature]
 NAME: Mangish Kumar
 COMPANY: SPFPG

ACCEPTED BY CLIENT: _____
 NAME: _____
 COMPANY: _____



COMMISSIONING CHECK SHEET

Date: 8/07/2019	Inspector Signature: 
Project: Cashmere School - Co Ed Block	Inspector Name: Manish Kumar
Valve Set No. 01 of: 01	Inspector Company: SPFP Group

PFA # 513652

Assessed Item	Unit	Complies / Notes
Occupancy	School	
Area	m	
Hazard Classifications	ELH, OH1, KH2, CH	
Highest Density EHH	mm/min	
Installation Contractor	Woomald's	
Date		
Date of Last Re-Inspection	10-06-2016	
Valve Overhaul Last Date	10-06-2016	
FBA Type	Tyco	
Connected To	ADT + Fire Brigade	
Alarm Valve Size	100 mm	
Alarm Valve Make	GEM	
Main Stop Valve Size	100 mm	
Main Stop Valve Make	FAVICO	
BIC / FSI Number of	01	
Supervisory Device Type (Electrical 'E' or Hydraulic 'H')	H	
Number Of Flow Switches		
Number Of Subsidiary Isolate Valves		
Primary Static	650 KPa	
Secondary Static	KPa	
Installation Pressure	1200 KPa	
Defect Pressure	1050 KPa	
Drop In Pressure Fire Switch	800 KPa	
Rise In Pressure Fire Switch	KPa/sec	
Primary Start Pressure	KPa	
Secondary Start Pressure	KPa	
Primary Pressure Thru 50 Mm	400 KPa	Barrington St
Secondary Pressure Thru 50 Mm	300 KPa	Rose St.
Design Flow 1	344 l/min	
Design Pressure 1	182 KPa	
Design Flow 2	842 l/min	
Design Pressure 2	215 KPa	
Design Flow 3	1352 l/min	
Design Pressure 3	215 KPa	

Standard Reference	Assessed Item	Complies / Notes
1	Sprinkler Control Valves (Clause 404)	
All	Secured	✓
All	Artificial lighting	✓
All	Artificial heating	✓
All	Sprinkler protected	✓
2007	Weather protected environment	✓
All	Access to control valves clear, condition ok	✓
All	SSVI plate legible & location(s) ok	✓
All	Spare sprinklers	✓
All	Sprinkler spanner	✓
All	Sprinkler cabinet/bracket	✓
All	Sprinkler test book location ok or identified	✓
All	Sprinkler test book testing current	System tested This month
All	Quadrennial valve overhaul current	✓
2	Water Supplies (Clause 605)	
All	Town main toby box accessible	✓
All	Street valves open	✓
1987	Strainer correctly fitted	✓
All	Strainer cleaned after full flow test	—
All	Hydrant/hose reel interconnections correct	—
All	Hose reel valve labeled	—
2005	Hose reel valve locked	—
3	Back Pressure (Non Return) Valves (Clause 403.3)	
All	Back pressure valve fitted	—
All	Back pressure valve tested annually	—
1961	Test facility fitted	—
All	Dual back pressure valves from non-potable supply	✓
2001	Backflow prevention device fitted	✓
All	Backflow prevention device tested annually	✓
2007	Backflow prevention device stop valves supervised	—
4	Subsidiary Valves and Other Stop Valves (Clause 404.2)	
2007	Accessible from floor or platform	—
All	Padlocked open	—
All	Indicators fitted	—
2007	Labeled	—
1987	Tested quarterly	—
5	Alarm Valve (Clause 404.4.4)	
All	Multiple alarm valves numbered correctly (404.8.3)	01

All	Drain valve locked/strapped	✓
All	Drain valve labeled	✓
All	Drainage satisfactory	✓
1987	Standing pressure less than 1200KPa	✓
1996	Standing pressure labeled if exceeding 1200KPa	N/A

Standard Reference	Assessed Item	Complies / Notes
6	Enhanced Safety Valve Set	
All	Stop valves either side of alarm valve	
All	Stop valves locked open	
2007	Stop valves labeled	
All	Stop valves supervised (as subsidiary stop valves)	
2007	Do not close sign	
2007	FBA labeled	
All	Bypass with check or alarm valve	
All	Stop valves either side of bypass valve	
All	Bypass valves locked closed	
2007	Bypass valves labeled	
All	Bypass valves supervised (defect)	
2007	Test & maintenance instructions	
7	Signalling – General (Clause 407.2.2.1)	
All	FBA in lockable cabinet & powered up	✓
All	MSV supervisory device operates in 2 turns	✓
All	Subsidiary stop valve supervisory device operates in 2 turns	✓
1996	Subsidiary stop valve isolation switch fitted/labeled	✓
All	SGD signals correctly	✓
All	Evacuation sounders activated	✓
1996	Bulgin key bell cut-off on FBA	✓
1996	Bulgin key bell cut-off on FBA signals defect	✓
8	Signalling Device Type X (Clause 407.2.2.1)	
All	Latching mechanism secure - operational	✓
All	FBA test valve fitted & operation correct	✓
2007	FBA test valve drain piped to suitable location	✓
All	Drilled NRV fitted & operation correct	✓
All	Defect pressure switch adjusted correctly	✓
All	Fire pressure switch adjusted correctly	✓
All	Defect & fire pressures recorded	✓
All	Door interlocks operate	✓
9	Signalling Device Type Y (Clause 407.2.2.2)	
All	Latching mechanism operational	
All	Drop in pressure switch test valve fitted	
1987	Drop in pressure test valve labeled	
2007	D.P test valve drain piped to suitable location	
All	Drilled NRV fitted & operation correct	

All	Drop in pressure switch adjusted correctly	
All	Rise in pressure test valve fitted	
1987	Rise in pressure test valve labeled	
All	Rise in pressure switch adjusted correctly	
All	Fire pressures recorded	
All	Door interlocks operate	
All	Electronic retard fitted	
All	Hydraulic retard chamber fitted	
All	Hydraulic retard chamber orificed correctly	
All	Alarm valve by-pass & check valve fitted	
2007	Inspectors test valve fitted	
All	Rise in pressure operated on one head flow	

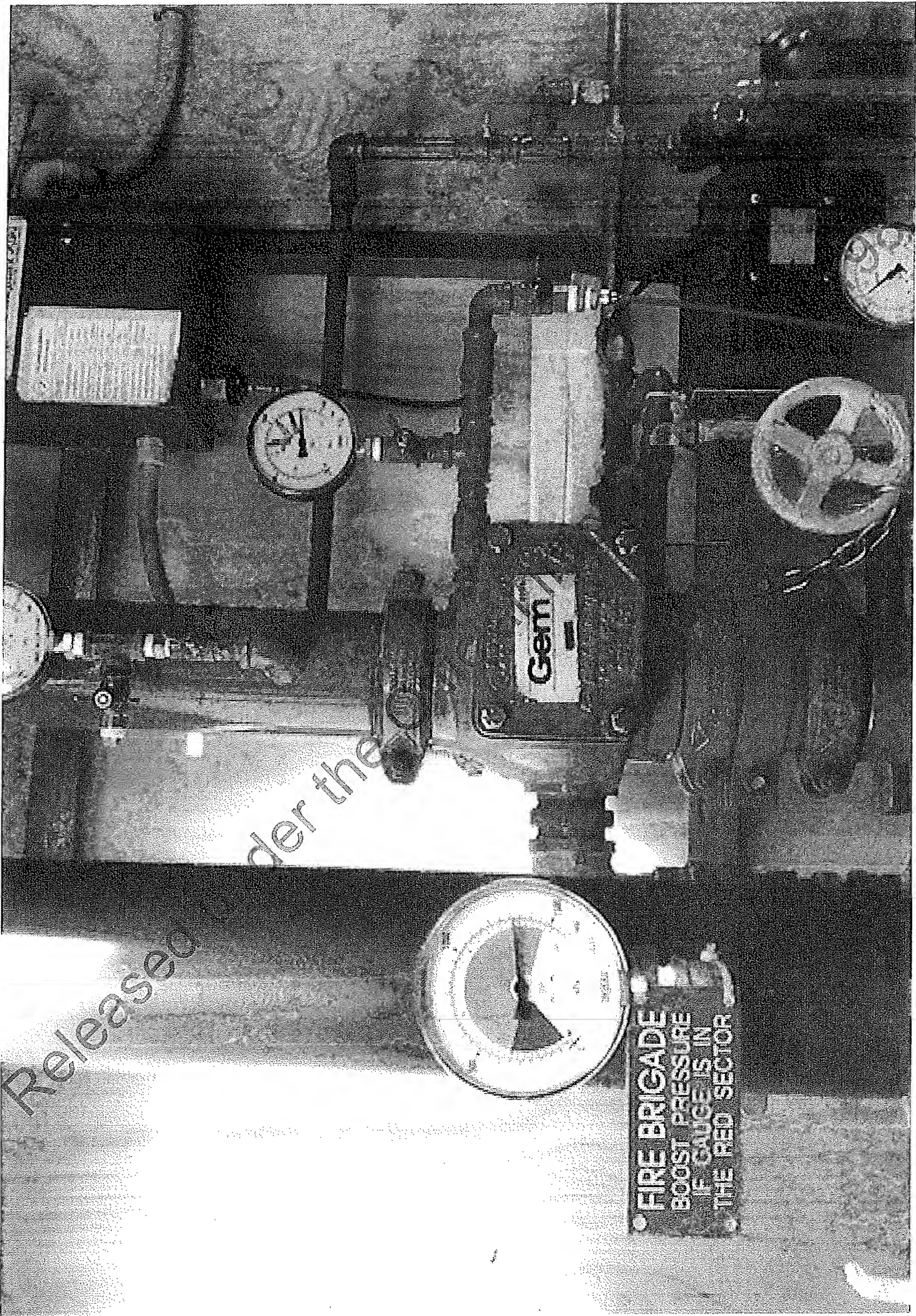
Standard Reference	Assessed Item	Complies / Notes
10	Pressure Gauges (Clause 406)	
1996	Primary gauge fitted upstream of strainer	✓
All	Primary gauge fitted upstream of backflow prevention	✓
1996	Secondary gauge fitted upstream of strainer	✓
All	Secondary gauge fitted upstream of backflow prevention	✓
1987	Gauge fitted upstream of MSV (combined main)	✓
All	Installation gauge fitted	✓ (Faulty Gauge Replaced)
All	FBA gauge fitted	✓ (Faulty Gauge Replaced)
All	FBA rise in pressure gauge fitted	NA
All	Dial markings, range & 100mm minimum	✓
All	Labelling correct	✓
All	Accuracy +1-4%	✓
1987	Gauge Isolate cocks fitted	✓
2003	Gauge test ports fitted	✓
11	Super Pressure Pump (Clause 407.5)	
All	Electrical operation/plug/wiring/switch satisfactory	✓
All	Belt guard fitted	✓
All	Satisfactory operation	✓
1987	Pressure relief valve fitted	✓
1987	Thermal cut out fitted	✓
12	Flow Switches (when fitted must comply)	
1987	Test facilities to permanent drain & orificed correctly	
1987	Test cocks labeled and strapped	
All	Flow switches indicate correctly	
All	Flow switches tested quarterly/annually	
13	Fire Sprinkler Inlet (Clause 610)	
2007	Cabinet door opens in 5 revolutions	NA
All	Cabinet & door in good condition	✓
1974	Splash guard fitted	NA
All	Door label satisfactory	✓

All	Open before pumping sign	✓
All	Stop valve functional/housed in cabinet	✓
All	External drainage satisfactory	✓
1987	FSI gauge fitted	✓ (Faulty Gauge Replaced)
1987	FSI gauge shaded	✓
1987	Installation gauge shaded in lieu of FSI gauge	✓
1987	Boost pressure... Sign fitted	✓ (New Sign fitted)
All	FSI valves & gauges numbered	only one
1987	ONE INLET PER 1350 l/m	✓
1974	Drain valve fitted below stop valve	✓
1996	Permanent test connection fitted (clause 610.6 – amendment 1 – 1211997)	✓
1974	Coupling & hand wheel clearances comply - NZS 4521	✓
2007	Protection from fall glass	NA

Standard Reference	Assessed Item	Complies / Notes
14	Hydraulic Gong (Clause 407.1)	
1987	Labelled fire sprinkler alarm	✓
All	Painted red	✓
All	Multiple gongs numbered correctly	✓
1987	Gong isolate valve labelled	✓
All	Isolate valve lockable	✓
All	Gong test valve fitted	✓
1996	Strainer fitted	✓
All	Frost drip fitted	✓
2007	Drainage to air gap	✓
All	Gong operates	✓
15	Block Plan (Clause 209)	
All	Fitted	✓
All	Orientation correct	✓
All	Location of control valves & fire sprinkler inlets shown	✓
All	Water supplies reticulation shown	✓
1987	Distance to street valve dimensioned if sub terrain	✓
1987	North point shown	✓
1987	External sprinklers shown	✓
1987	Highest design flow & pressure shown	✓
1987	Hazard classifications shown	✓
1987	EHH design density & area of operation shown	✓
1987	Aerosol storage area shown	✓
1987	Fire separations, fire doors & self-closing doors shown	✓
All	Area protected by each installation shown	✓
1987	Location of any drain valves shown	✓
All	Scale correct & shown	✓
1987	Location of tail-end valve sets/subsidiary stop valves shown	✓

2007	Location of other water supply take-offs & Isolate valves	✓
2007	Types of sprinkler heads installed	✓
16 Water Supply Reference Information (Clause 210)		
1987	Water supply reference graph displayed	✓
1987	Drain valve residual pressures recorded	✓
1987	System design demands	✓
1987	Pump test return pressure shown	✓
2007	Pressure switch set pressures shown	✓
2007	Pressure control valve set pressures shown	✓
All	Gauge schedule provided	✓
17 Hand Appliances (Clause 208)		
All	Extinguisher/hose reel servicing current	
All	Extinguisher/hose reel coverage adequate	
1996	Hose reels installed in EHH occupancies	
All	Hose reel performance adequate in EHH occupancies	

Assessed Item	Complies / Notes
18 Routine Re-Inspection Items Checked and Satisfactory	
Adequacy of sprinkler spacing & location	
Adequacy of design density	
Adequacy of in-rack protection/bulkheads	
Adequacy of clear space below sprinklers	
Adequacy of storage height limitation signs	
Suitability & condition of pipework & sprinklers	
Adequacy of fire rated partitions in accessible concealed spaces	
Separation from unprotected areas or exposure hazards	
Density of anti-freeze & the adequacy of separation barriers	
19 Storage	
Area of Building	
Category of Storage	
Permitted Height	
Observed Height	
Area of Building	
Category of Storage	
Permitted Height	
Observed Height	
Area of Building	
Category of Storage	
Permitted Height	
Observed Height	



Released

der the

FIRE BRIGADE
BOOST PRESSURE
IF GAUGE IS IN
THE RED SECTOR

Gem

Building Name: Conductive Education Building
Address: Cashmer High School - Rose St

Testing Contractor/Agent:
System Number: PFA: 513652

	Month 1	Month 2	Quarterly
Date:	4-07-19		
Access - Security	✓		
Installation Pressure Arrive kPa	1050		
Installation Pressure Depart kPa	1300		
Primary Static Pressure kPa	670		
Secondary Static Pressure kPa			
Gauge Readings in Tolerance of Gauge Schedule	✓		
Operate Isolate - Test Mode	✓		
Operate Stop Valve(s) Supervisory Device(s)	✓		
Defect Pressure Drop kPa	1050		
Fire Pressure Drop kPa	800		
Fire Pressure Rise kPa	—		
Evacuation System Operates	✓		
Start Pressure Primary kPa	—		
Start Pressure Secondary kPa	—		
Electric Phase Fail & Power Operational	/		
Electric Manual Controls + Auto Start	/		
Electric Run 5 Mins	/		
Electric Pump Running Alarm Operates	/		
Electric Pump Return Closed	/		
Diesel Pump - Refer Diesel Test Log Book	/		
Diesel Pump Running Alarm Operates	/		
Main Stop Valve & Subsidiaries Open	✓		
Chains, Locks, Padlocks, Straps & Labels OK	✓		
Operate Gong - Cock Open	✓		
Water Tank Full	—		
Ball Cock Tested	—		
Operate Alarm Valve			
Primary 50mm Drain Pressure kPa			
Secondary 50mm Drain Pressure kPa			
No. 1 Street Valve Open/Clear & Accessible			
No. 2 Street Valve Open/Clear & Accessible			
Hose Reel Supply Open & Labelled			
Subsidiary Stop Valves Inspected & Tested			
Flow Switches Indicate Correctly			
Pre-Action System(s) Checked			
Sprinklers in Dirty Atmospheres Checked			
Automatic Tank Infill Valve Exercised			
Testers Signature:			

Remarks: System pressure at defect on arrival 1050 kPa. Pumped to normal pressure. further assessment recommended.

White: Owners Copy

Yellow: Book Copy



ANZ Centre, 267 High Street
PO Box 13960, Christchurch 8141, New Zealand
T: +64 3 366 3521 // F: +64 3 366 3188
E: info@beca.com // www.beca.com

Ministry of Education (NZ)
PO Box 2522
Christchurch
New Zealand

18 September 2017

Attention: Margaret Waller

Dear Margaret

Cashmere High School, Christchurch - Fire Safety Review for the Conductive Education Building

Beca Ltd (Beca) has been requested by the Ministry of Education to conduct a fire safety review for the existing Conductive Education building at Cashmere High School, Christchurch.

Background

The existing Conductive Education building is a single storey that was constructed in 2003. The building operates as an educational facility for students with special needs.

The building is currently fitted with an automatic smoke detection, manual alarm and warning devices. The building is also protected with an automatic sprinkler system comprising a dedicated alarm valve that feeds from an existing in-ground water ring main. The in-ground water ring main is understood to have originally been installed circa 1950. Several segments of the water ring main were upgraded overtime, recently in 2010, whilst the rest were left to the original installation.

In late 2016, and prior to commencing works relating to the current development, the School's IQP had identified a deficiency in the water supply for the sprinkler system. This defect hindered the renewal of the School's Building Warrant of Fitness BWoF.

Recently, and following a series of thorough testing and inspections on the water supply, the cause for the said defect was identified. The defect was assigned to two segments of the in-ground ring main pipes installed circa 1950. The defect in these pipes, whether caused due to normal aging or is related to the Canterbury 2011 earthquake could not be identified, is causing significant pressure loss to both sides of the alarm valve rendering the sprinkler system in the Conductive Education building deficient. Other buildings on site that are protected with sprinklers, namely the Admin and the Gym, have their systems performing as required by their design criteria due to the ring main configuration of the water supply.

The school is currently undergoing a major development programme. Part of this programme is the replacement of the old underground ring main. Due to the size of the development and the requirement for the school to maintain its operation, the works are staged. Up until now the north, east and part of the west sides of the ring main, some 350 lineal metres, have been upgraded, refer attached sketch. The defected segments of the ring main, shown in "PINK" in the attached sketch, are scheduled for replacement during the summer holiday between December 2017 and February 2018. Once the replacement is complete, the sprinkler system for the Conductive Education building will revert to its full compliance.

Also part of this development is for the demolition of the existing Conductive Education building when the new facility is up and running. This is scheduled for the summer holiday of 2018-2019.

Letter Objective

A discussion between the Ministry of Education and Christchurch City Council concluded the need for a fire engineer to assess the Conductive Education building and demonstrate its compliance with the NZ Building Code, at least to a "as nearly as is reasonably practicable" before a BWoF can be granted for the school.

Accordingly the objective of this letter is to assess the building's level of compliance with the NZ Building Code using one of its recognised compliance methodologies. For this particular educational building, the Compliance Document C/AS4 January 2017 has been used.

Fire Safety Assessment

Occupancy

The building contains two classrooms, two interview rooms, a resource room, a staff office, a staff breakout area, amenities and a circulation space. When using the densities given by Table 1.2 of C/AS4, the total number of occupants is calculated to be 113 persons. Refer attached sketches for more details.

The school has advised the actual number of occupants in the building does not exceed 25, however and for the purposes of this assessment the largest number of occupants will be considered which is that calculated using C/AS4 tables.

Fire Safety Precautions

As per Paragraph 2.2.1 of C/AS4, the building requires the following fire safety systems,

1. Type 4 alarm system,
2. Type 9 smoke control in air handling system, and
3. Type 18 building fire hydrant.

The building is currently provided with a Type 7 system comprising automatic sprinklers, automatic smoke detectors, manual call points and warning devices. The provision of automatic sprinkler was originally instigated by the Ministry of Education guidelines which exceeds NZBC requirements. Whilst smoke detectors are provided throughout, the Fire Alarm System's standard "NZS 4512" accepts their substitution with heat detectors in areas prone to false alarms. The satisfaction of this requirement is currently achieved with the provision of automatic sprinklers acting as heat sensing devices. Despite the case that the sprinkler system is suffering a deficient water supply, the heat sensing elements of the sprinklers continue to provide alarm signals similar to heat detectors and generate evacuation alarm signals accordingly. As such, all the components of a Type 4 required by the Compliance Document and the Fire Alarm Standard are maintained in the building. Compliance may also be achieved with the retrofit of proper heat detectors in areas with no smoke detectors to satisfy Type 4 alarm system. Such an upgrade may not be reasonable for the short life of the sprinkler system deficiency which is between now and the December 2017 summer holiday.

The building is not provided with air handling systems, therefore no requirement for a Type 9 system.

Anywhere in the building is within 75m of the Fire Service vehicular access, hence no building fire hydrant is required.

In conclusion, the level of fire safety precautions required by NZ Building Code for the building has been achieved.

Means of Escape

Considering the number of occupants above, C/AS4 requires a minimum of two escape routes for the building. The building is provided with two escape routes. The building is currently provided with a third final exit door at the rear of the building. The third final exit is not mandatory for the building to comply with NZBC since that part of the building meets all requirements for "dead end". Refer occupant numbers and travel distances.

The minimum width of the escape routes needs to be achieved when the widest escape route is considered not available, exclude provision of sprinklers. The 113 occupants require a minimum of $113 \times 7 = 791\text{mm}$ wide escape routes. This width is achieved with the minimum door width of 850mm required by C/AS4. Each of the two escape routes in the building is wider than 791mm, therefore compliance is achieved. Refer attached sketches.

Apart from the door between Classroom 2 and the circulation space, all other doors on escape routes are compliant in their swinging direction. Due to the calculated number of occupants in Classroom 2 (61), the door into the circulation area needs to swing in the direction of escape. This non-compliant feature is considered insignificant since the doors are not provided with self-closers and the students are constantly supervised by trained staff who are responsible for their evacuation. Compliance can then be considered achieved to an ANARP level.

The dead end open path and the total open path are less than 40m and 100m respectively, see attached sketches.

No dead ends in the building serve more than 50 occupants.

The height of the escape routes are more than 2100mm and all doors on escape routes are higher than 1955mm, therefore comply.

All final exit doors are easily openable from the inside and without key or pad locks.

None of the final exit doors are provided with panic fastening as required by Paragraph 3.15.12 C/AS4. It is to be noted that occupants of the spaces are constantly supervised by staff who are responsible for their evacuation. Staff are trained and able to set the doors to open. Compliance can therefore be considered to have been achieved on an ANARP level.

Illuminated EXIT signage is provided throughout. In accordance with assessment, the following changes to EXIT signage is recommended;

1. Add new EXIT sign above door in Classroom 2 into circulation space. Sign can be of the photo-luminescent type
2. Remove EXIT sign above door in circulation space into resource room
3. Add new EXIT sign above door in resource room into circulation space. Sign can be of the photo-luminescent type
4. Remove EXIT sign above final exit door in resource room.

Items 2 – 4 above are only required up to the rectification of the in-ground water main and reinstatement of the automatic sprinkler system. Once the sprinkler system is rectified the rear final exit can resume its operation and compliance since the pathway outside the building, i.e. external escape route, is distanced more than 1.0m from the building and have travel distance lesser than 60m as per Table 3.4 C/AS4. After reinstating the sprinkler system, changes to EXIT signage given in Items 2-4 are to revert to current setup.

At the time when the building was constructed, emergency lighting was only required in *exitways*. Therefore the building is not provided with this system. The current Building Code required emergency lighting throughout. Given the building has a very limited lifetime, scheduled for demolition at the end of the 2018 academic year, it is considered unreasonable to provide emergency lighting at this stage and compliance is deemed to have been achieved to ANARP.

Internal Spread of Fire

The building is one firecell, therefore no internal fire separations are required.

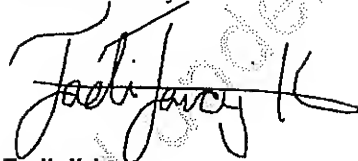
Surface finishes are a combination of GIB wall lining, standard carpet and light weight tiled ceilings. Vinyl is noticed inside amenities and kitchen. Vinyl is also noticed on some walls fixed up to 1.1m high. Although the type of vinyl could not be accurately determined, from visual inspection it appears to be of the Tarkett family or similar. Such vinyl is known to have been tested to ISO 5660 and shown to achieved Group Number 1S.

Similar, standard flooring carpet in New Zealand is shown to meet the critical radiant flux of 1.2kW/m², and compliance is considered to have been achieved on ANARP level.

Conclusion

In conclusion, the building can achieve compliance with NZBC without a fully operative sprinkler system but maintaining the heat sensing component in areas without smoke detection.

Yours sincerely



Fadi Jirjees

Associate - Fire

on behalf of

Beca Limited

Direct Dial: +64-3-363 3464

Email: fadi.jirjees@beca.com

STATE OF CHS WATER SUPPLY.

25 October 2016

Cashmere High School- Gymnasium

PFA #: 513478

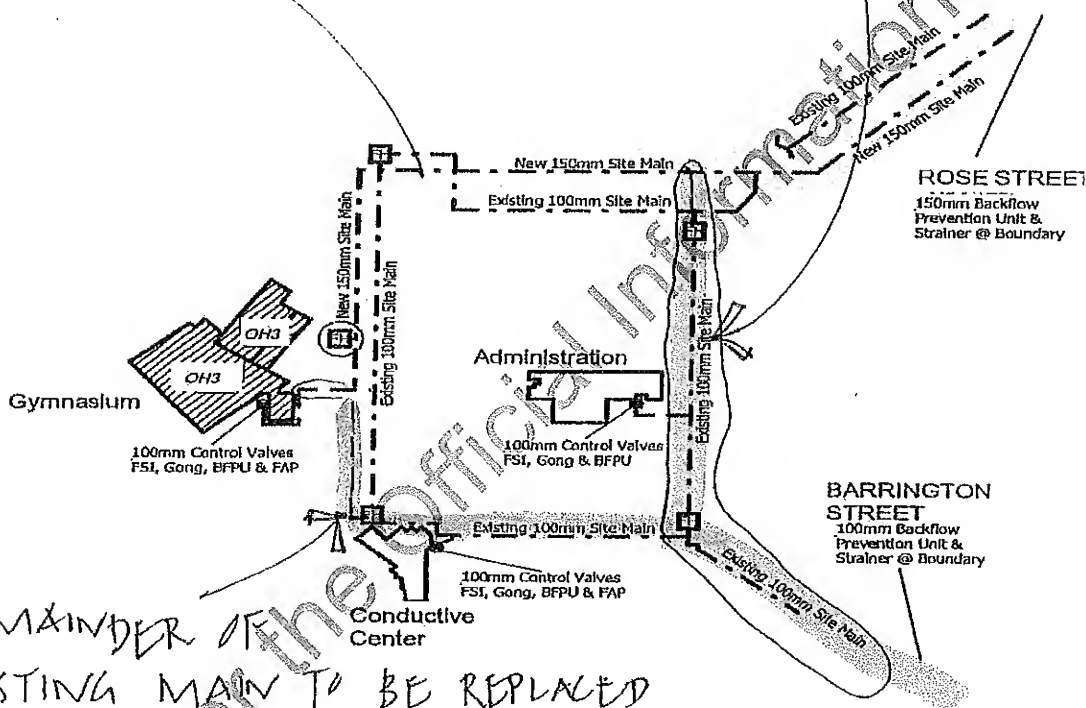
SITE PLAN



* ATYFIELD ARCHITECTS
COMMENTS 15/06/17.

NEW 150MM SITE
MAIN INSTALLED
DEC 2016.

EXTENT OF NEW
150MM SITE MAIN
INSTALLED 2010.



REMAINDER OF
EXISTING MAIN TO BE REPLACED
WITH 150MM NEW AT END OF
2017

Occupancy classification:	School	X	External sprinkler head
System classification:	ELH, OH3	⊕	Control valves
Water demand:	A: 270 l/min @ 350 kPa B: 1400 l/min @ 250 kPa	⌵	Stop valve
Number of levels:	One	▽	Non return valve
Highest head:	10.0m	⊙	Exposure hazard
Scale:	NTS	★	Approximate design point position
Drawn:	SA	FSI	Fire Service inlet
Date:	Oct 16		

PDF ONLY
NO DWG FILE

Drawing No.

1

NTS
Planchon
Scale 1/2" = 1'

465017	2010
--------	------

[illegible]

DRAFT
FOR DISCUSSION
PDF ONLY
NO DWG FILE

Fire Engineering
5388298-FEK 02

MEANS OF ESCAPE

CASHMERE HIGH SCHOOL
CONDUCTIVE EDUCATION BUILDING

MINISTRY OF EDUCATION

Level	Area (m ²)	Volume (m ³)	Height (m)	Area (m ²)	Volume (m ³)	Height (m)
Level 1	1,000.00	1,000.00	3.00	1,000.00	1,000.00	3.00
Level 2	1,000.00	1,000.00	6.00	1,000.00	1,000.00	6.00
Level 3	1,000.00	1,000.00	9.00	1,000.00	1,000.00	9.00
Level 4	1,000.00	1,000.00	12.00	1,000.00	1,000.00	12.00
Level 5	1,000.00	1,000.00	15.00	1,000.00	1,000.00	15.00
Level 6	1,000.00	1,000.00	18.00	1,000.00	1,000.00	18.00
Level 7	1,000.00	1,000.00	21.00	1,000.00	1,000.00	21.00
Level 8	1,000.00	1,000.00	24.00	1,000.00	1,000.00	24.00
Level 9	1,000.00	1,000.00	27.00	1,000.00	1,000.00	27.00
Level 10	1,000.00	1,000.00	30.00	1,000.00	1,000.00	30.00
Level 11	1,000.00	1,000.00	33.00	1,000.00	1,000.00	33.00
Level 12	1,000.00	1,000.00	36.00	1,000.00	1,000.00	36.00
Level 13	1,000.00	1,000.00	39.00	1,000.00	1,000.00	39.00
Level 14	1,000.00	1,000.00	42.00	1,000.00	1,000.00	42.00
Level 15	1,000.00	1,000.00	45.00	1,000.00	1,000.00	45.00
Level 16	1,000.00	1,000.00	48.00	1,000.00	1,000.00	48.00
Level 17	1,000.00	1,000.00	51.00	1,000.00	1,000.00	51.00
Level 18	1,000.00	1,000.00	54.00	1,000.00	1,000.00	54.00
Level 19	1,000.00	1,000.00	57.00	1,000.00	1,000.00	57.00
Level 20	1,000.00	1,000.00	60.00	1,000.00	1,000.00	60.00
Level 21	1,000.00	1,000.00	63.00	1,000.00	1,000.00	63.00
Level 22	1,000.00	1,000.00	66.00	1,000.00	1,000.00	66.00
Level 23	1,000.00	1,000.00	69.00	1,000.00	1,000.00	69.00
Level 24	1,000.00	1,000.00	72.00	1,000.00	1,000.00	72.00
Level 25	1,000.00	1,000.00	75.00	1,000.00	1,000.00	75.00
Level 26	1,000.00	1,000.00	78.00	1,000.00	1,000.00	78.00
Level 27	1,000.00	1,000.00	81.00	1,000.00	1,000.00	81.00
Level 28	1,000.00	1,000.00	84.00	1,000.00	1,000.00	84.00
Level 29	1,000.00	1,000.00	87.00	1,000.00	1,000.00	87.00
Level 30	1,000.00	1,000.00	90.00	1,000.00	1,000.00	90.00
Level 31	1,000.00	1,000.00	93.00	1,000.00	1,000.00	93.00
Level 32	1,000.00	1,000.00	96.00	1,000.00	1,000.00	96.00
Level 33	1,000.00	1,000.00	99.00	1,000.00	1,000.00	99.00
Level 34	1,000.00	1,000.00	102.00	1,000.00	1,000.00	102.00
Level 35	1,000.00	1,000.00	105.00	1,000.00	1,000.00	105.00
Level 36	1,000.00	1,000.00	108.00	1,000.00	1,000.00	108.00
Level 37	1,000.00	1,000.00	111.00	1,000.00	1,000.00	111.00
Level 38	1,000.00	1,000.00	114.00	1,000.00	1,000.00	114.00
Level 39	1,000.00	1,000.00	117.00	1,000.00	1,000.00	117.00
Level 40	1,000.00	1,000.00	120.00	1,000.00	1,000.00	120.00
Level 41	1,000.00	1,000.00	123.00	1,000.00	1,000.00	123.00
Level 42	1,000.00	1,000.00	126.00	1,000.00	1,000.00	126.00
Level 43	1,000.00	1,000.00	129.00	1,000.00	1,000.00	129.00
Level 44	1,000.00	1,000.00	132.00	1,000.00	1,000.00	132.00
Level 45	1,000.00	1,000.00	135.00	1,000.00	1,000.00	135.00
Level 46	1,000.00	1,000.00	138.00	1,000.00	1,000.00	138.00
Level 47	1,000.00	1,000.00	141.00	1,000.00	1,000.00	141.00
Level 48	1,000.00	1,000.00	144.00	1,000.00	1,000.00	144.00
Level 49	1,000.00	1,000.00	147.00	1,000.00	1,000.00	147.00
Level 50	1,000.00	1,000.00	150.00	1,000.00	1,000.00	150.00
Level 51	1,000.00	1,000.00	153.00	1,000.00	1,000.00	153.00
Level 52	1,000.00	1,000.00	156.00	1,000.00	1,000.00	156.00
Level 53	1,000.00	1,000.00	159.00	1,000.00	1,000.00	159.00
Level 54	1,000.00	1,000.00	162.00	1,000.00	1,000.00	162.00
Level 55	1,000.00	1,000.00	165.00	1,000.00	1,000.00	165.00
Level 56	1,000.00	1,000.00	168.00	1,000.00	1,000.00	168.00
Level 57	1,000.00	1,000.00	171.00	1,000.00	1,000.00	171.00
Level 58	1,000.00	1,000.00	174.00	1,000.00	1,000.00	174.00
Level 59	1,000.00	1,000.00	177.00	1,000.00	1,000.00	177.00
Level 60	1,000.00	1,000.00	180.00	1,000.00	1,000.00	180.00
Level 61	1,000.00	1,000.00	183.00	1,000.00	1,000.00	183.00
Level 62	1,000.00	1,000.00	186.00	1,000.00	1,000.00	186.00
Level 63	1,000.00	1,000.00	189.00	1,000.00	1,000.00	189.00
Level 64	1,000.00	1,000.00	192.00	1,000.00	1,000.00	192.00
Level 65	1,000.00	1,000.00	195.00	1,000.00	1,000.00	195.00
Level 66	1,000.00	1,000.00	198.00	1,000.00	1,000.00	198.00
Level 67	1,000.00	1,000.00	201.00	1,000.00	1,000.00	201.00
Level 68	1,000.00	1,000.00	204.00	1,000.00	1,000.00	204.00
Level 69	1,000.00	1,000.00	207.00	1,000.00	1,000.00	207.00
Level 70	1,000.00	1,000.00	210.00	1,000.00	1,000.00	210.00
Level 71	1,000.00	1,000.00	213.00	1,000.00	1,000.00	213.00
Level 72	1,000.00	1,000.00	216.00	1,000.00	1,000.00	216.00
Level 73	1,000.00	1,000.00	219.00	1,000.00	1,000.00	219.00
Level 74	1,000.00	1,000.00	222.00	1,000.00	1,000.00	222.00
Level 75	1,000.00	1,000.00	225.00	1,000.00	1,000.00	225.00
Level 76	1,000.00	1,000.00	228.00	1,000.00	1,000.00	228.00
Level 77	1,000.00	1,000.00	231.00	1,000.00	1,000.00	231.00
Level 78	1,000.00	1,000.00	234.00	1,000.00	1,000.00	234.00
Level 79	1,000.00	1,000.00	237.00	1,000.00	1,000.00	237.00
Level 80	1,000.00	1,000.00	240.00	1,000.00	1,000.00	240.00
Level 81	1,000.00	1,000.00	243.00	1,000.00	1,000.00	243.00
Level 82	1,000.00	1,000.00	246.00	1,000.00	1,000.00	246.00
Level 83	1,000.00	1,000.00	249.00	1,000.00	1,000.00	249.00
Level 84	1,000.00	1,000.00	252.00	1,000.00	1,000.00	252.00
Level 85	1,000.00	1,000.00	255.00	1,000.00	1,000.00	255.00
Level 86	1,000.00	1,000.00	258.00	1,000.00	1,000.00	258.00
Level 87	1,000.00	1,000.00	261.00	1,000.00	1,000.00	261.00
Level 88	1,000.00	1,000.00	264.00	1,000.00	1,000.00	264.00
Level 89	1,000.00	1,000.00	267.00	1,000.00	1,000.00	267.00
Level 90	1,000.00	1,000.00	270.00	1,000.00	1,000.00	270.00
Level 91	1,000.00	1,000.00	273.00	1,000.00	1,000.00	273.00
Level 92	1,000.00	1,000.00	276.00	1,000.00	1,000.00	276.00
Level 93	1,000.00	1,000.00	279.00	1,000.00	1,000.00	279.00
Level 94	1,000.00	1,000.00	282.00	1,000.00	1,000.00	282.00
Level 95	1,000.00	1,000.00	285.00	1,000.00	1,000.00	285.00
Level 96	1,000.00	1,000.00	288.00	1,000.00	1,000.00	288.00
Level 97	1,000.00	1,000.00	291.00	1,000.00	1,000.00	291.00
Level 98	1,000.00	1,000.00	294.00	1,000.00	1,000.00	294.00
Level 99	1,000.00	1,000.00	297.00	1,000.00	1,000.00	297.00
Level 100	1,000.00	1,000.00	300.00	1,000.00	1,000.00	300.00

Beca

Rev	By	Chk	Date	Description
1	AW	AW	15/07/17	Initial Design
2	AW	AW	15/07/17	Final Design
3	AW	AW	15/07/17	Final Design
4	AW	AW	15/07/17	Final Design
5	AW	AW	15/07/17	Final Design
6	AW	AW	15/07/17	Final Design
7	AW	AW	15/07/17	Final Design
8	AW	AW	15/07/17	Final Design
9	AW	AW	15/07/17	Final Design
10	AW	AW	15/07/17	Final Design
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18	AW	AW	15/07/17	Final Design
19	AW	AW	15/07/17	Final Design
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65	AW	AW	15/07/17	Final Design
66	AW	AW	15/07/17	



ANZ Centre, 267 High Street
PO Box 13960, Christchurch 8141, New Zealand
T: +64 3 366 3521 // F: +64 3 366 3188
E: info@beca.com // www.beca.com

Cashmere High School
172 Rose St, Somerfield,
Christchurch 8024
New Zealand

19 September 2017

Attention: Mark Wilson

Dear Mark

Conductive Education Building, Cashmere High School - Changes to EXIT Signage

Beca has recently been requested by The Ministry of Education to run a quick fire safety assessment for the Conductive Education Building at Cashmere High School. The assessment is in relation to the currently defected automatic sprinkler system.

The assessment concluded the building can comply with NZ Building Code using the Compliance Document C/AS4 without the need for the automatic sprinkler system that was originally installed to meet the Ministry's fire safety guideline. However, and to bring the building to compliance with the NZ Building Code, the following arrangement to its escape routes are required.

1. A minimum of two escape routes are required for the building. These are designated to be,
 - a. The main entry double doors,
 - b. The door in Classroom 1 to the outside
 - c. The door in classroom 2 to the outside

Please note the rear door from the Resource Room is not a compliance escape route without sprinklers.

2. The rear area in the building containing the Staff breakout, Staff Office and Resource Room is not to be occupied by more than 50 occupants.
3. Classroom 1 requires at least one escape route which is the final exit to the outside.
4. Classroom 2 requires two escape routes, these are,
 - a. The final exit to the outside,
 - b. The double doors into the building circulation space then via the main entry doors to the outside.
5. EXIT signs are to follow the designated escape routes above and be arranged as follows;
 - a. Add new EXIT sign above door in Classroom 2 into circulation space. Sign can be of the photo-luminescent type
 - b. Remove EXIT sign above door in circulation space into Resource Room
 - c. Add new EXIT sign above door in Resource Room into circulation space. Sign can be of the photo-luminescent type
 - d. Remove EXIT sign above final exit door in Resource Room.

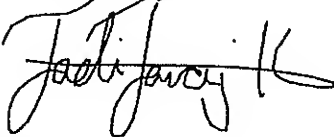
Please note items b, c and d above are only required until the automatic sprinkler system is rectified during the summer holiday of 2017. When the system is rectified, the rear escape route from the Resource Room will be compliant and can resume its operation.

6. Revise the building's evacuation plan and inform all trained Staff of the temporary arrangement until the sprinkler system is rectified.

By adopting the above, the building continues to comply with the NZ Building Code.

If you require further information please do not hesitate writing to us.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Fadi Jirjees', with a stylized flourish at the end.

Fadi Jirjees
Associate - Fire

on behalf of

Beca Limited

Direct Dial: +64-3-363 3464
Email: fadi.jirjees@beca.com

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From: Rob Wilson
To: [REDACTED]
Cc: Katerina Beattie; "Kirsten Dell-Hartgers"; [REDACTED] Team MOE
Subject: CASHMERE HIGH SCHOOL - BWOFF PACKAGE WITH UPDATED RIL INCLUDED
Date: Tuesday, 16 July 2019 12:43:04 p.m.
Attachments: Cashmere High Major Defect List Remediation.pdf
 Letter for Co ED.PDF
 Form 11 - Add SS3.1.pdf
 Cashmere final (2).pdf
 20190716121225193.pdf

s 9(2)(a) OIA

Hello [REDACTED],

Please find attached the BWOFF package with an amended RIL included. Also attached is the Argest report and two subsequent reports that confirm the 7 items in bold have been completed.

You will all see the wording to the RIL have been updated to refer to the contract Argest have with MBM re being the sites IQP and service provider for SS1 and SS2.

[REDACTED], Yes the Form 11 is still applicable, the fact that the doors are back in use was advised to Argest verbally by the school, but I would think can be left until the next CCC related C/S amendment, but this is of course Councils call to make.

I understand this will now allow the CPU application for the PAC building to progress?

Cheers Rob

Rob Wilson
Contract Manager

s 9(2)(a) OIA

ARGEST Building & Compliance
www.argest.com

From: Rob Wilson
Sent: Tuesday, 16 July 2019 11:26 AM

To: [REDACTED]
Cc: Katerina Beattie (Katerina.Beattie@education.govt.nz); Kirsten Dell-Hartgers; [REDACTED]; Hayden Westbury
Subject: RE: HPRM: FW: Cashmere High School - Fire Services Engagement - remaining bold items completion advice

Hi [REDACTED], many thanks, this is indeed great news.

Yes we will redo the BWOFF paperwork to include an amended RIL that includes and refers to the two confirmations of work done re the 7 items in bold and send it through.

Many Thanks Rob

Rob Wilson
Contract Manager

ARGEST Building & Compliance
www.argest.com

s 9(2)(a) OIA

s 9(2)(a) OIA

s 9(2)(a) OIA

s 9(2)(a) OIA

s 9(2)(a) OIA

From: [REDACTED]@ccc.govt.nz

Sent: Tuesday, 16 July 2019 10:44 AM

s 9(2)(a) OIA **To:** Rob Wilson

Cc: Katerina Beattie (Katerina.Beattie@education.govt.nz); Kirsten Dell-Hartgers; [REDACTED]

Subject: RE: HPRM: FW: Cashmere High School - Fire Services Engagement - remaining bold items completion advice

Morning Rob,

Great news, [REDACTED] and I had a chat this morning and are happy with the 2 Reports submitted regarding the resolution of the Outstanding Issues with SS1 & SS2 at Cashmere High.

I've attached a copy of the Documents sent through dated 11 June 2019, can these be updated mention made in RIL regarding repots from SPFP re SS1 and Optimus Fire re SS2.

Also, a form 11 was submitted, does it still need actioning?

Any questions please let me know.

Regards,

[REDACTED]
Technical Officer [Project Information Memoranda]

Engineering Services Team

Commercial Consents Unit

Building Consenting
[REDACTED]

Email: [REDACTED]@ccc.govt.nz

Web: www.ccc.govt.nz

Christchurch City Council

Civic Offices, 53 Hereford Street, Christchurch PO Box 73013, Christchurch, 8154

Please consider the environment before printing this email

Stay informed with the **Go Ahead - Building and Planning** newsletter.

Go to www.ccc.govt.nz/goahead_newsletter for the latest newsletter and to subscribe.

s 9(2)(a) OIA **From:** Rob Wilson [mailto:[REDACTED]@argest.com]

Sent: Friday, 12 July 2019 3:57 p.m.

To: [REDACTED]@ccc.govt.nz; [REDACTED]@ccc.govt.nz

Cc: Katerina Beattie (Katerina.Beattie@education.govt.nz)

<Katerina.Beattie@education.govt.nz>; Kirsten Dell-Hartgers <dhk@cashmere.school.nz>

Subject: HPRM: FW: Cashmere High School - Fire Services Engagement - remaining bold items completion advice

s 9(2)(a) OIA

Hello [REDACTED]

Please find attached a report that shows all 7 report items in bold have now been completed.

We hope that this brings the BWOF and supporting paperwork up to the level that enables the CPU application to proceed.

Cheers Rob

s 9(2)(a) OIA

Rob Wilson
Contract Manager

[REDACTED]
ARGEST Building & Compliance
www.argest.com

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Christchurch City Council
<http://www.ccc.govt.nz>

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OPTIMUS FIRE

& BUILDING SERVICES LTD

12 July 2019

Manish Kumar
South Pacific Fire Protection Ltd
328 Tuam Street
Christchurch

Attention Manish

Project: Cashmere High School – Argest Major Defect Remediation

Thank you for the opportunity for us to attend to the Cashmere High School fire system major defects list as supplied by Argest that required remediation. We note that there are other identified defects on site of a more minor nature which have been approved to be sorted over the next week or so.

Below we list the defects and subsequent remediation;

SS1 Automatic System for Fire Suppression

1. Con Ed Sprinkler in Defect on arrival and still in defect on departure

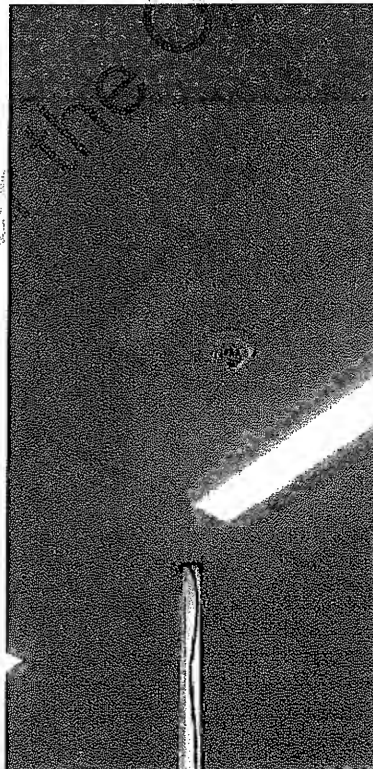
Defect sorted by Manish Kumar of South Pacific Fire Protection and covered in previous email.

SS2 Emergency Warning System

1. Classroom A9 cap on detector

Cover removed by Cashmere High School Caretaker – Confirmed by Optimus Fire

Photo show smoke with no cover



2. Gym smoke detector and sprinkler head covered by store room exit

We understand this was sorted by Cashmere High School Caretaker however we found a Gym store room with plastic cover over sprinkler head held with blue tape. We removed the plastic cover.

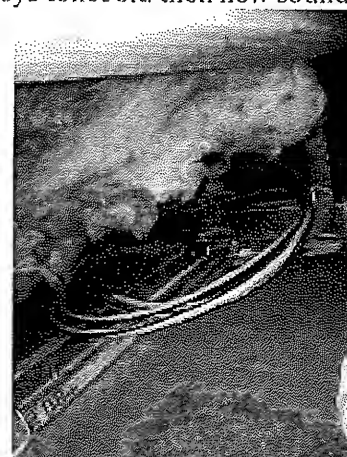
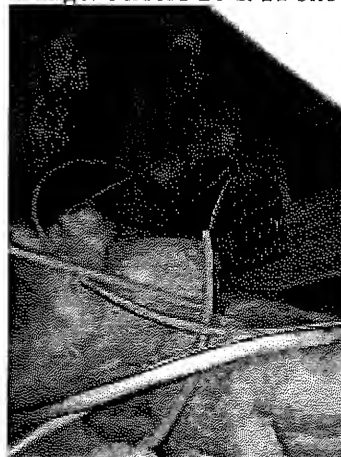
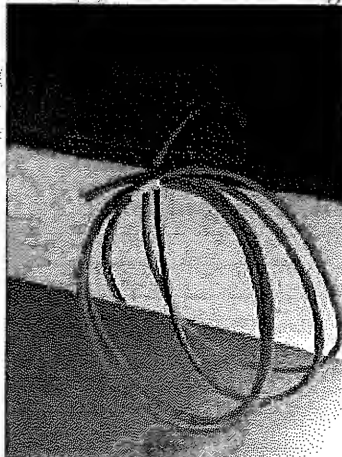
Photo 1 shows plastic on, Photo 2 shows plastic removed



3. Gym toilet/changing rooms low sound levels

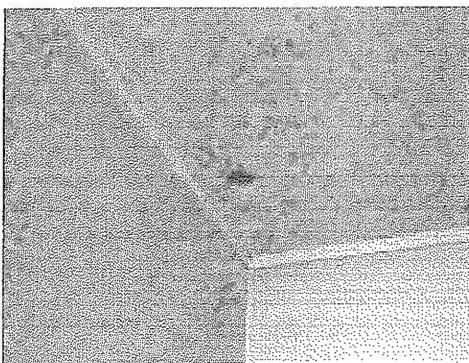
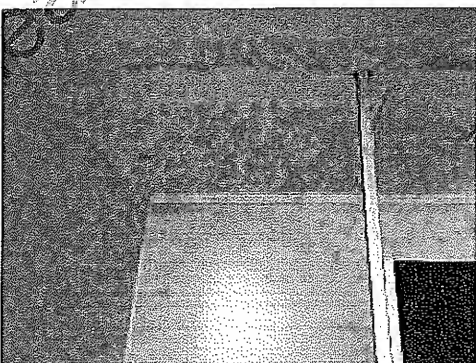
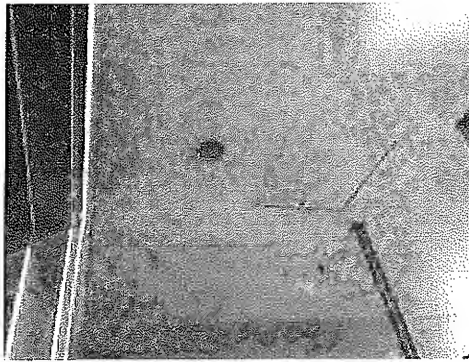
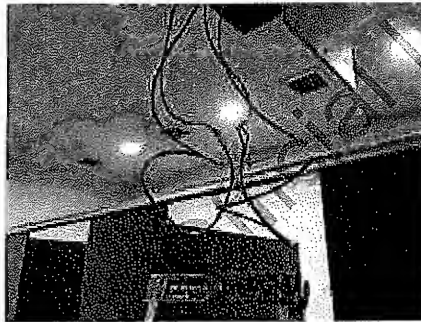
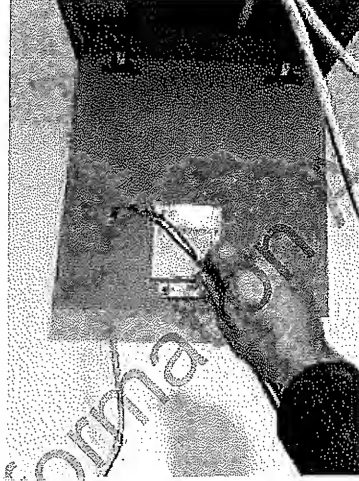
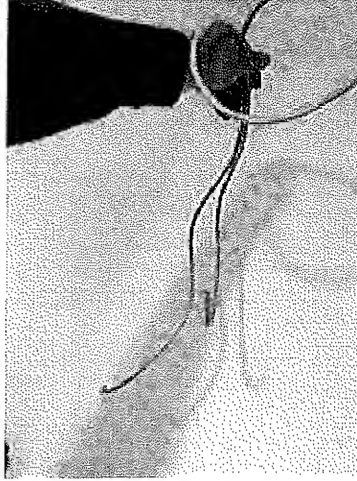
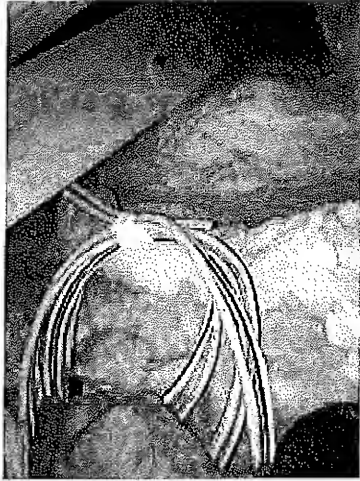
We investigated the evacuation devices in the Gym toilet/change areas and found several devices not working. Speakers which failed had no monitoring voltage which they should have if they were in circuit. We accessed the roof void and found five (5) open circuits on the evacuation feed. We expect these were wired for during installation but never brought through the gib. All five open circuits were junctioned which allowed some failed sounder to operate however two (2) still failed. Replaced these old Ampac sounders with new Pertronic ones which operated correctly. The old Ampac sounders were found to be problematic in the past including the grills falling off and were no longer sold as a result.

Photo 1 to 5 shows all 5 open circuits. Photo 6 & 7 show crimp joins to repair circuit. Photos 8 & 9 show old and new sounder in girls change. Photos 10 & 11 show boys toilet old then new sounders.



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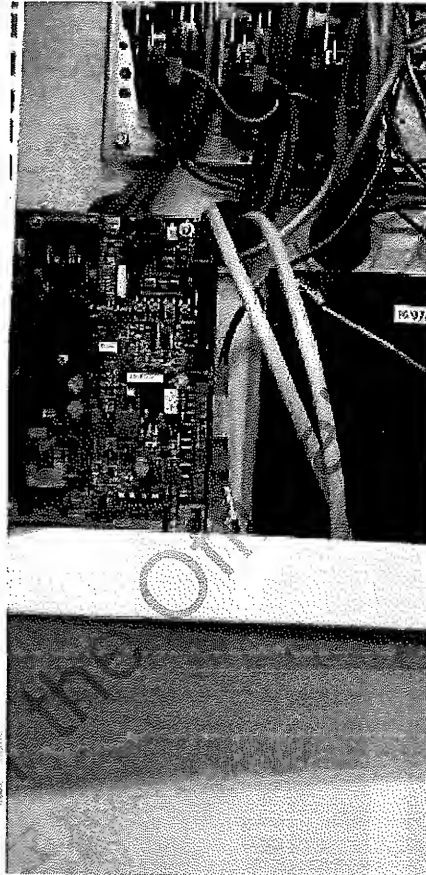
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4. Amplifier 3 overloaded at 78watts (this needs urgent attention)

We carried out an impedance test on the evacuation feed to Amplifier 3 and found it to be just over 90Watts. The Amplifier is rated at a maximum of 50Watts so is well overrated. We purchased an FP1116 – 120Watt T-Gen which as stated is rated at 120Watt, 30Watts over the current evacuation load. This was installed, made into the master amplifier and tested ok.

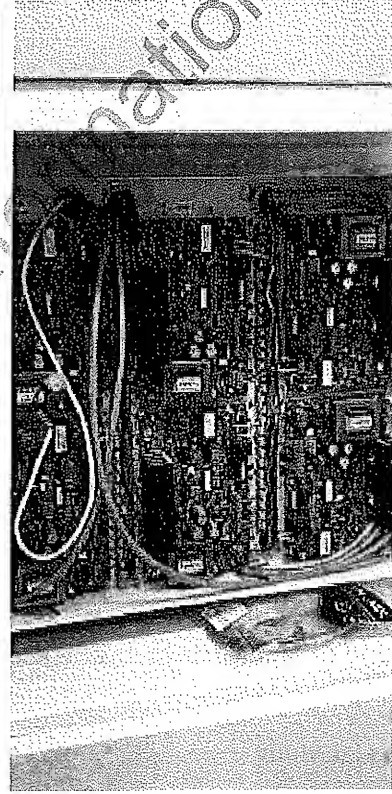
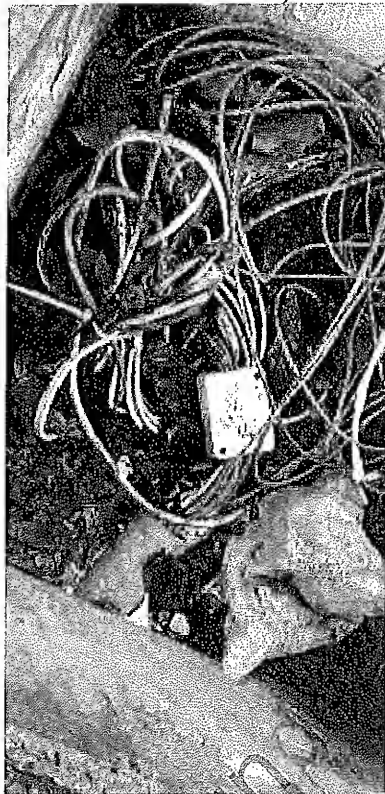
Photo 1 shows the new 120Watt Amplifier installed in the MX1 panel. The green normal light is top centre and the green LCD display is showing normal screen.



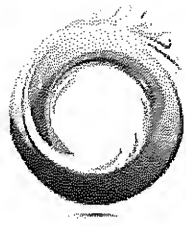
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5. Sounder fault on Amp 4 needs attention as this is causing a fault on the panel. We carried out fault finding on evacuation circuit for Amplifier 4. The fault tended to come and go. We tracked it back to some underground junctions that were inadequately terminated. These junctions were temporarily made good and the fault cleared. No sign of a fault on this Amplifier has since occurred. The temporary junction will not cause issue but will require a permanent water protected join which we will look at doing week starting 15 July 2019 during School Holidays. Photo 1 shows underground junction with inadequate water protected terminations. Photo 2 shows another major junction on the side of the Administration Block which also required improved terminations. Photo 3 shows ALL Amplifiers in normal state (defect state shows a bright yellow LED on the left of the board).

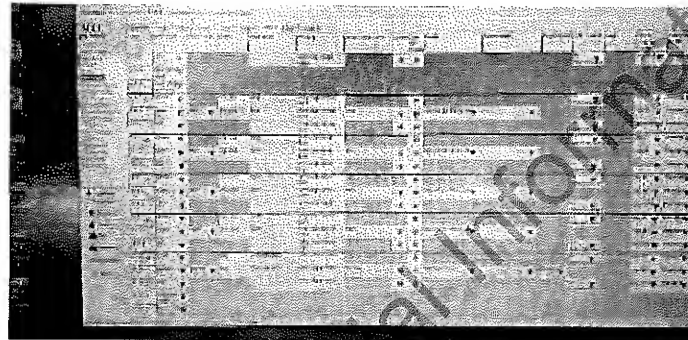
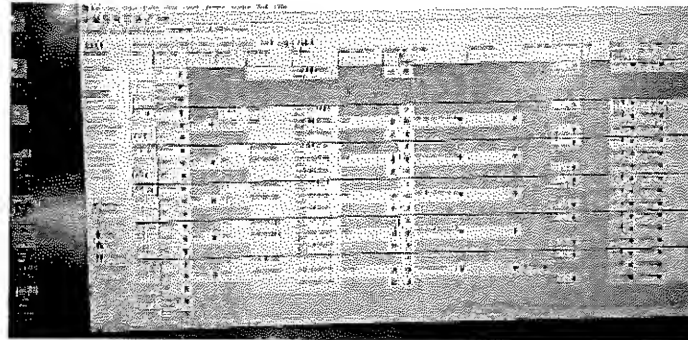


6. 5 minute delay on sounder operation and brigade calling on smoke detectors, sounders are to be instant the delay on the brigade calling is to remain. The 5 minute delay has been changed in the config as required. The fire system now has immediate evacuation on activation of a smoke detector, MCP or sprinkler. There is a 5 minute delay on the Fire Service calling on smoke detectors but not on MCP's or Sprinkler. Photo 1 shows a snapshot of part of the config with smoke evac delay. Photo 2 shows the same section without smoke evac delay.



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We can now formally advise that the above 7 items have been remediated and as such are confident that the system will function as and when required. As mentioned above further minor remedial items that do not affect the safety and integrity of the system are already being sorted with completion planned to be prior to the start of Term 3.

I trust the above satisfies your requirement, should you require further information please do not hesitate to contact me on the details below.

Yours faithfully

Simeon Wilson
Operations Manager
Optimus Fire and Building Services
IQP #617 – SS1, 2, 3, 4, 6, 7, 13, 14, 15
Fire Detection Level 4
021 891 940
WWW.optimusfire.co.nz



SITE SAFE
MEMBER



Association of Building
COMPLIANCE



(MBM Fire Protection Ltd is part of South Pacific Fire Protection Group Ltd)

Auckland Christchurch Dunedin Queenstown

To Whom it may concern,

Date: 9 July 2019

Cashmere High School, Christchurch.

Response to building warrant fitness inspection by Argest on 20 June 2019.

SS 1 Sprinkler System

1. Con Ed Sprinkler In Defect on arrival and still in defect on departure
2. Installation and DBA Gauges reading differently (300 KPA difference)

Summary:

MBM Fire being engaged to investigate and resolve above mentioned defects on fire sprinkler system for building Con Ed Block. At arrival we noted sprinkler system is sitting on defect. And we couldn't find evidence on site if this system is being tested as required for SS1. To investigate and resolve the issue, following measures been followed:

- **Commissioning check sheet:** we completed our standard commissioning check sheet to audit the operation and functionality of this sprinkler system. Check sheet attached. Followings has been noted and rectified:
 1. Faulty installation gauge – Replaced
 2. Faulty DBA gauge – Replaced
 3. Faulty FSI gauge – Replaced
 4. Boost pressure sign- new sign installed
 5. Check system pressure- system pumped up to normal
- **Pressure test:** To make sure there is not leak on sprinkler system we conducted 2 separate pressure tests above alarm valve. First test conducted dated 6-7 2019 @ 1600 KPA for 1 hour: Pass results attached. 2nd test conducted on 9 -07-2019 @ 1600 KPA for 2 hours. Pass results attached.
We suggest monitoring system pressure for couple weeks, if pressure drops might pay to check fire alarm valve seals and gasket etc.
- **Monthly testing:** we completed monthly test by dropping system pressure to defect and test fire. Copy of test sheet attached. As we are not receiving page from ADT monitoring, we contacted ADT via phone to confirm if they received test fire and answer is 'Yes'.

Conclusion:

I am pleased to confirm that Co ED block sprinkler system PFA#513652 is fully functional & operational as required by NZS4541.



(MBM Fire Protection Ltd is part of South Pacific Fire Protection Group Ltd)

Auckland Christchurch Dunedin Queenstown

Please do not hesitate to contact if any further information required.

Sincerely,

A handwritten signature in black ink, appearing to read 'Manish Kumar', is written over a horizontal line.

Manish Kumar

Operations Manager

South Pacific Fire Protection Group Ltd

Mob: 02108182833

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Consenting & Compliance Group

Application for amendment to compliance schedule

SECTION 106, BUILDING ACT 2004

FORM 11 - BUILDING (FORMS) REGULATIONS 2004

CCC Compliance Schedule Number:
WOF51725

1. About this form

- A compliance schedule is a document that is required by the Building Act 2004. It details the inspection maintenance and reporting of a specified system such as sprinkler systems, emergency lighting and fire alarms to ensure that the building owners take responsibility to guarantee the safety of building occupants and buildings.
- Please check that the forms that you are using are current at the time of application as they are subject to change without notice.
- General information can be found on our website at www.ccc.govt.nz/goahead

2. The building

Street address *(include Level and Unit No):*

172 ROSE STREET

Legal description: Lot No: Lot 5 Deposited Plan 9847, Lot 2,3,4,10 Deposited Plan 9938

DP:

*State legal description as at the date of application and, if subdivision is proposed include details of relevant Lot numbers and subdivision consent.*Building name *(where applicable):*

CASHMERE HIGH SCHOOL

Location of building within site: *(include nearest street access)*

Rose Street access

Number of levels:

*(including ground level and any levels below ground)*Level / Unit number *(if applicable):*

Current lawfully established use:

Assembly Care/School

(include number of occupants per level and per use if more than 1 level)

Year first constructed: N/A

(insert year, approximate date is acceptable, e.g. c1920s or 1960-1970)

Maximum occupant load:

Fire hazard category: CL WL 2

3. The Owner

Full Name(s): Ministry of Education, Property Management Group, National Office, Wellington

Include preferred form of title, e.g. Mr, Mrs, Ms Miss, Dr if an individual and the contact person's name if a company, trust or similar

First point of contact for communications within Council: Argest Technical Services Ltd, as owner's authorised agent

Email address: wn@argest.com

Website: www.argest.com

Mailing address: PO Box 10145, Wellington (Argest)

Street address/Registered office: ☐ If different than above

Phone numbers: Daytime: 0800 274 378 (24hrs number)

Mobile: :

Fax: 04 473 1111

After hours:

Evidence of ownership attached: ☐ Certificate of Title ☐ Lease agreement ☐ Sale and purchase

4. Agent – First point of contact

Only required if the application is being made on behalf of the Owner.
Agent must be authorised by the Owner to make this application.

Name of agent: Argest Technical Services Ltd

Include the contact person's name if a company, trust or similar

New Zealand Companies Registered Number (if applicable - refer to www.business.govt.nz/companies): 292444

First point of contact for communications within Council: Rob Wilson – Contact manager

Relationship with Owner: Authorised Agent

Email address: wn@argest.com

Website: www.argest.com

Mailing address: PO Box 10145, Wellington (Argest)

Street address/Registered office: ☐ If different than above

Phone numbers: Daytime: 0800 274 378 (24hrs number)

Mobile:

Fax: 04 473 1111

After hours: 0800 274 378 (24hrs number)

5. Compliance schedule amendments

I request that the compliance schedule for the above building be amended as follows:

✓	Specified Systems	Amendment	Reason
<input type="checkbox"/>	SS1 – Automatic systems for fire suppression		
<input type="checkbox"/>	SS2 – Emergency warning systems		
<input checked="" type="checkbox"/>	SS3/1 – Automatic door	ADD	Removed from CS in 2016 due to the door being locked. They are now unlocked and back in use. 1 x Automatic door, location: J Block, conductive education building
<input type="checkbox"/>	SS3/2 – Access controlled doors		
<input type="checkbox"/>	SS3/3 – Interfaced fire or smoke doors or windows		
<input type="checkbox"/>	SS4 – Emergency lighting systems		
<input type="checkbox"/>	SS5 – Escape route pressurisation systems		
<input type="checkbox"/>	SS6 – Riser mains		
<input type="checkbox"/>	SS7 – Automatic back-flow preventers		
<input type="checkbox"/>	SS8/1 – Passenger carrying lifts		
<input type="checkbox"/>	SS8/2 – Service lifts		
<input type="checkbox"/>	SS8/3 – Escalator and moving walks		
<input type="checkbox"/>	SS9 – Mechanical ventilation or air conditioning systems		
<input type="checkbox"/>	SS10 – Building maintenance units		

✓	Specified Systems	Amendment	Reason
<input type="checkbox"/>	SS11 – Laboratory fume cupboards		
<input type="checkbox"/>	SS12/1 – Audio loops		
<input type="checkbox"/>	SS12/2 – FM radio and infrared beam transmission systems		
<input type="checkbox"/>	SS13/1 – Mechanical smoke control		
<input type="checkbox"/>	SS13/2 – Natural smoke control		
<input type="checkbox"/>	SS13/3 – Smoke curtains		
<input type="checkbox"/>	SS14/1 – Emergency power systems		
<input type="checkbox"/>	SS14/2 – Signs for SS1-13		
<input type="checkbox"/>	SS15/1 – Spoken information to facilitate evacuation		
<input type="checkbox"/>	SS15/2 – Final exits		
<input type="checkbox"/>	SS15/3 – Fire separations		
<input type="checkbox"/>	SS15/4 – Signs for facilitating evacuation		
<input type="checkbox"/>	SS15/5 – Smoke separations		
<input type="checkbox"/>	SS16 – Cable cars		

6. Attachments

- ☐ Copy of existing compliance schedule
- ☐ Copy of; performance standards inspection, maintenance, and reporting procedures for the specified systems.

7. Declaration

To be completed and signed by Owner / Agent.

I / we understand that a fee may be charged for processing this application, according to the Schedule of Fees (Building Charges), applicable at the time of application (please refer to the Building Consents Fee Schedule on our [website](#) for current charges.)

All of the above information is, to the best of my knowledge, true and correct. I understand that all attachments submitted as part of an application are required to be kept available for public record, therefore the public (including business organisations and other units of the Council) may view this application, once submitted.

Owner's/ Agent signature: M. Simpson

Date: 11/06/2019

Print name: Monica Simpson

Position: Contract administrator

If you are signing this application on behalf of a company/trust/other entity (the applicant), you are declaring that you are duly authorised to sign on behalf of the applicant to make such an application.

By signing this application you are accepting responsibility to pay all actual and reasonable costs incurred by the Christchurch City Council. Where an invoiced amount has not been paid by the stated due date, the Council may commence debt recovery action. The Council reserves the right to charge interest, payable from the date the debt became due, and recover costs incurred in pursuing recovery of the debt.

PRIVACY INFORMATION:

If you would like to request access to, or correction of, your details, please contact the Council.

6. Information

GENERAL INFORMATION:

- **Building consent fees:** The latest Building Consent Fee Schedule is available on our [website](#) or from one of our Service Centre's
- Guidance sheets and information booklets produced by the Council and the Ministry of Business, Innovation and Employment Building and Housing Group are available at all Service desks
- For general enquiries please phone (03) 941 8999 or email info@ccc.govt.nz

SUBMITTING AN APPLICATION:

Online Services applications:

- You can submit your application online at <http://onlineservices.ccc.govt.nz>
- You will need to register to use Online Services. You can register at <http://onlineservices.ccc.govt.nz>.

An application can also be lodged via the following methods:

- Post (*additional costs apply*) your application to: Consenting & Compliance Group, PO Box 73013, Christchurch 8154
- Hand delivered (*additional costs apply*) to Civic Offices, 53 Hereford Street, Christchurch Central or dropped off at any Council service desk listed on our website at www.ccc.govt.nz/contact-us/service-desks

All applications will be checked for completeness prior to acceptance. Please ensure that you have compiled your documents carefully to avoid delays in accepting your application. If your application is incomplete it will not be accepted and the statutory processing timeframe will not start until the missing information has been provided.



Building & Compliance Management

20 June 2019

To whom it may concern,

Cashmere High School, Christchurch
Building Warrant of Fitness IQP Inspection

Recently we completed an IQP Inspection at the above property for your Building Warrant of Fitness purposes. From the information provided an inspection was performed, we report the following:

SS 1 Sprinkler System

1. Con Ed Sprinkler in Defect on arrival and still in defect on departure
2. Installation and DBA Gauges reading differently (300 KPA difference)

SS 2 Emergency Warning

1. There are multiple canopies throughout the site with dimensions of greater than 1.5m in all directions that are unprotected
2. B Block ground floor obsolete Smoke detectors in corridor by smoke detector Z8/P5/111 to be removed
3. Manual Call point partially blocked Z8/P5/89 (call points require 600mm clear space around them)
4. Smoke detector Z6/P3/16 to close to air-conditioning unit
5. Smoke detectors for obsolete door holders to be removed by smoke detector Z6/P3/50
6. 2nd stairwell no manual call point by exit
7. Smoke detector Z6/P3/16 spacing out of rule (6.2m to fire door)
8. Multiple Smoke door smoke detectors not labeled throughout the site. (These are standalone detectors that are not connected to the fire alarm panel)
9. Classroom A9 Cap on detector
10. Smoke detector English areas detectors out of rule for spacing
11. Smoke detector Z9/P5/76 spacing out of rule (5.3m to walls)
12. Gym Smoke detector and sprinkler head covered by store room exit.
13. Library high level smoke detector spacing out of rule
14. S Block Heat detectors in toilets have unapproved covers installed these need to be removed
15. Music Disabled toilet used for storage, heat detector should be replaced with smoke detector or storage removed and the disabled toilet reinstated (this is preferred as that is what it is designed for)
16. Admin Upstairs locker rooms and sick bay no smoke detection
17. Admin downstairs meeting room Call point covered by curtain
18. Index not accurate for the type of systems throughout the school
19. Some smoke detectors do not have individual point location description although this is a small portion of the devices
20. 5 minute delay on sounder operation and brigade calling on smoke detectors, evidence of fire design approval required. There should be no delay on the sounder operation.

ARGEST

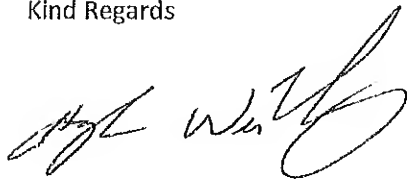
Building & Compliance Management

21. Gym Toilet/changing rooms low sound levels
22. W block with high ceilings Low sound level
23. A and B Block classrooms top floor low sound levels in some of the classes
24. Fire alarm batteries due replacement dated 2014 (Manufacturers recommend a five year replacement cycle)
25. Amplifier 3 Overloaded at 78watts this needs urgent attending (description for coverage shows A and B blocks this may assist with fault 23 above once attended to)
26. Distance to the furthest points in the school appear to be over 100m to the attendance point a second attendance point display may be required distance to be confirmed this has been previously approved
27. Sounder fault on Amp 4 needs attention as this is causing a fault on the panel
28. New block under construction some isolations present on the panel for this area

This report was completed at the request of the Ministry, school and Council to support the BWOF and supporting paperwork as already issued. The issues in bold need to be rectified immediately as there are impairments of the systems the remaining faults should be corrected before next warrant issue.

If you require any further information, please do not hesitate to contact me on 027 554 9677.

Kind Regards



Hayden Westbury
Argest Building and Compliance



Building & Compliance Management

11 June 2019

Building Compliance Department
 Christchurch City Council
 PO Box 73013
 Christchurch 8154

Dear Sir or Madam

CASHMERE HIGH SCHOOL
Building Warrant of Fitness Expiring 1 May 2020

Argest Technical Services Limited has the nationwide contract with the Ministry of Education to provide Compliance Schedule Management and Fire Protection Services for State schools.

In accordance with our contractual obligations to the Ministry of Education and in terms of the Building Act we hereby supply you with a new Building Warrant of Fitness for the above school.

We confirm that a copy of the Building Warrant of Fitness and the accompanying forms and/or certificates, have been forwarded to the school with instructions to publicly display the original and file the copies, as required by the Building Act 2004.

We trust this is in keeping with your expectations.

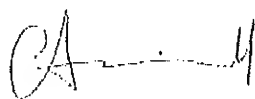
Please contact me if you require any further information regarding these matters.

Yours faithfully
Argest Technical Services Limited – Wellington



 Christine Scammell, Executive Director

TA 60 ID 340 Prepared by msimpson

BUILDING WARRANT OF FITNESS - Form 12, Section 108, Building Act 2004

THE BUILDING		
Compliance Schedule No.: WOF51725		Annual BWOF Expiry Date: 1 May 2020
Name: CASHMERE HIGH SCHOOL		Current, Lawfully established use: Assembly Care/School
Address: 172 ROSE STREET, CHRISTCHURCH		Intended life of the building (if 50 years or less): Indefinite
Level/Unit Number: As Per Latest Compliance Schedule		Highest fire hazard category for building use: CL 2
Legal Description of land where building is located: Lot 5 Deposited Plan 9847, Lot 2,3,4,10 Deposited Plan 9938		Location of Building within site/block number: Rose Street access
Year first constructed: 1954		
THE OWNER		
Ministry Of Education, Property Management Group, National Office, Wellington, but refer to Agent		AGENT
Mailing Address: PO Box 1666 Wellington, but refer to Agent		Argest Building and Compliance Management
Street Address/Registered Office: 45-47 Pipitea St Wellington, but refer to Agent.		Mailing address: PO Box 10145 Wellington
Telephone No: 04 463 8000, but refer to Agent		Street Address/Registered Office: Grd Flr, 155 The Terrace Wellington
Web Site: www.minedu.govt.nz		Telephone No: 0800 274 378
		E-mail Address: wn@argest.com
		Web Site: www.argest.com
SYSTEMS – as per Building Act 2004		
SS1 Automatic systems for fire suppression	SS2 Emergency warning systems	
SS3/2 Access controlled doors	SS3/3 Interfaced fire or smoke doors or windows	
SS4 Emergency lighting systems	SS7 Automatic Backflow Preventer's	
SS8/1 Passenger carrying lift	SS9 Mechanical ventilation or air conditioning systems	
SS11 Laboratory fume cupboards	SS14/2 Signs relating to SS1 to SS13	
SS15/2b Final exits	SS15/3c Fire separations	
SS15/4d Signs for facilitating evacuation	SS15/5e Smoke separations	
WARRANT		
The maximum number of occupants that can safely use this building is: Max Occ: 1700 total for school, Admin<100, Library<200, Gym<1000, Conductive Educ<33, Careers E3<1000, Classrooms A blk-374, B blk - 312 C & D blk<200 E & T blk<100, K blk-175, M blk M7-11 prefab<100, O Blk<100, W blk 210, W6 47, W7 24, portal blk - 346, PAC bldg - 1404, science bldg - 252		
The inspection, maintenance, and reporting procedures of the compliance schedule for the above building have been fully complied with during the 12 months prior to the date stated below.		
The Compliance Schedule is kept at: The school		
ATTACHMENTS:	a) Certificates relating to inspections, maintenance, and reporting (Form 12A) b) Recommendations for amendments to the compliance schedule (Form 11) if any.	
Signature of agent on behalf of and with the authority of the Owner:	Christine Scammell, Executive Director, Argest Building & Compliance 	Date of Issue: 11 June 2019 TA: 60 School ID 340

Report in Lieu of Form 12A

THE BUILDING	
Street address of building: 172 Rose Street	
Legal description of land where building is located: Lot 5 Deposited Plan 9847, Lot 2,3,4,10 Deposited Plan 9938	
Building Name/Trading Name: Cashmere High School	
Location of building within site/block number: Rose Street access	
Level/unit number: unknown	
Compliance schedule number: WOF51725	
THE OWNER	
Name of Owner: Ministry of Education	
Contact Person: Rob Wilson C/- Argest	
Mailing Address: P O Box 10 145, Wellington	
Street address/registered office: 155 The Terrace, Wellington	
REPORT	
Specified system or feature: SS1 - Automatic systems for fire suppression & SS2 - Emergency warning systems	
1)	<p>A full explanation of why the required inspection, maintenance or reporting procedures have not been carried out for the 12 months prior to the anniversary date of the Compliance Schedule and what corrective action has been undertaken to eliminate any reoccurrence.</p> <p>As per the previous correspondence with the Council, Argest are unable to source a Form 12A for SS1 and SS2 for the previous 12 months due to ongoing building work that has compromised the overall compliance of the three sprinklers and the one fire alarm system on the schools site.</p>
2)	<p>A statement that any remedial work and/or inspection and maintenance on the specified system/feature has been carried out and that the specified system/feature is now in a compliant state and fully operational.</p> <p>An Argest report dated 20/06/2019 as supplied to Council identified several issues that need attention. Seven were in bold. The Ministry and school as per the attached two reports, also supplied to Council have had these items completed. The Ministry and school will also ensure the balance of the items will be completed as soon as possible but at present no later than the end of September. Under NZS4512 they are minor defects that should not hold up the issue of a form 12a.</p>
3)	<p>A statement that an Independent Qualified Person/licensed Building Practitioner has been and will continue to be engaged to inspect, maintain and report on the specified system/feature.</p> <p>Argest as from 1 July have appointed MBM as the new Service Provider/IQP for the SS1 and SS2 systems on this site. They will undertake all required monthly testing, annual surveys etc so this should ensure a clean Form 12a is available for next years' BWO, at least for the last 10 months.</p>
4)	<p>A statement that the ongoing inspection, maintenance and reporting procedures will be carried out to permit a 12A certificate to be issued for that specified system/feature on the next and subsequent anniversaries of the issued Compliance Schedule.</p> <p>Response: As above</p>
In addition to the report	
i)	The building warrant of fitness supplied must reflect the number of months the warrant has been issued for.
ii)	A statement or report must be provided from the IQP/LBP supporting the assertion made in item 2 & 3 of the report.
<p>Note: This report must be signed by the Owner or Owners agent (being a person that is not the IQP/LBP involved).</p> <div style="text-align: center; margin-top: 10px;">  </div>	
Signature of Owner or Owner's agent:	
Full name of Owner or Owner's agent: Rob Wilson, Contract Manager Argest	
Date: 16 July 2019	

ID: 340

dormakaba 

dormakaba New Zealand Ltd
61-69 Patiki Road Avondale, 1026
Auckland New Zealand
Ph: 0800 788 688
www.dormakaba.com.nz

FORM 12A

Certificate of Compliance with Inspections, Maintenance and Reporting Procedures
Form 12A Section 108 (3) (c), Building Act 2004

The Building

<u>Legal Land Description:</u>	Lot 3 DP 17801
<u>Building Name:</u>	Cashmere High School (ATS 340)
<u>Building Address:</u>	172 Rose Street Christchurch 8041
<u>CS Number:</u>	
<u>Owner Details:</u>	Ministry of Education, PO Box 10-145 Wellington
<u>Contact Person:</u>	Argest Technical services

Compliance:

The inspection, maintenance and reporting procedures of the Compliance Schedule have been fully complied with during the 12 months prior to the date stated below in relation to the following specified systems/s:

SS3/1 - Automatic Doors; SS3/2 - Access Control Door(s)

Comments/Remedial Action:

Name of Company: dormakaba NZ Limited
Name of IQP: Angela McMahon IQP No 422

Signature:



Date:

May 1, 2019

FORM 12A SECTION 108 (3) (C) BUILDING ACT 2004

CERTIFICATE OF COMPLIANCE WITH INSPECTIONS MAINTENANCE AND REPORTING PROCEDURES

THE BUILDING	
Building Name: CASHMERE HIGH SCHOOL	Legal Description of land where building is located: Lot 5 Deposited Plan 9847, Lot 2,3,4,10 Deposited Plan 9938
Street address of Building: 172 ROSE STREET, CHRISTCHURCH,	Location of Building within site/block number: As per latest Compliance Schedule
Level/Unit Number: Refer to actual BWOFF.	Compliance Schedule No: WOF51725
THE OWNER	
Name of Owner: Ministry of Education, Property Management Group, National Office, Wellington.	Contact Person: Argest Technical Services Limited, as owners' authorised agent.
Mailing Address: PO Box 1666 Wellington, but refer to Argest as agent.	Street Address/Registered Office: Argest, Ground Floor, 155 The Terrace, Wellington, postal: PO Box 10145 Wellington.
COMPLIANCE	
The inspection, maintenance, and reporting procedures of the compliance schedule have been fully complied with during the 12 months prior to the date stated below in relation to the following specified system/s:	
SPECIFIED SYSTEMS – as per Compliance Schedules issued under Building Act 2004	
<input type="checkbox"/> SS1-Automatic systems for fire suppression <input type="checkbox"/> SS2-Emergency warning systems <input type="checkbox"/> SS3/1-Automatic door <input type="checkbox"/> SS3/2-Access controlled doors <input checked="" type="checkbox"/> SS3/3-Interfaced fire or smoke doors or windows <input checked="" type="checkbox"/> SS4-Emergency lighting systems <input type="checkbox"/> SS5-Escape route pressurisation systems <input type="checkbox"/> SS6-Riser mains <input type="checkbox"/> SS7-Automatic Backflow Preventer's <input type="checkbox"/> SS8/1-Passenger carrying lift <input type="checkbox"/> SS8/2-Service lift <input type="checkbox"/> SS8/3-Escalator & moving walk <input type="checkbox"/> SS9-Mechanical ventilation/air conditioning systems	<input type="checkbox"/> SS10-Building maintenance units <input type="checkbox"/> SS11-Laboratory fume cupboards <input type="checkbox"/> SS12/1-Audio loops <input type="checkbox"/> SS12/2-FM & infrared transmission systems <input type="checkbox"/> SS13/1-Mechanical smoke control <input type="checkbox"/> SS13/2-Natural smoke control <input type="checkbox"/> SS13/3-Smoke curtain <input type="checkbox"/> SS14/1-Emergency power systems <input checked="" type="checkbox"/> SS14/2-Signs <input type="checkbox"/> SS15/1a-Spoken information to facilitate evacuation <input type="checkbox"/> SS15/2b-Final exits <input type="checkbox"/> SS15/3c-Fire separations <input checked="" type="checkbox"/> SS15/4d-Signs for facilitating evacuation <input checked="" type="checkbox"/> SS15/5e-Smoke separations
Comments; such as numbers of units, locations etc.	
Name of IQP (Please Print): <i>Donna Evans</i>	TA No: 60 ID No: 340 BWOFF due: 01 May
Name of IQP Company: <i>SGS NZ LTD</i>	IQP Number: <i>649</i>
Signature of IQP: <i>[Signature]</i>	Date: <i>3.5.19</i>

SS7 BACKFLOW PREVENTOR FORM 12A AND TEST SHEET

Section 108 (3) (c), Building Act 2004 and AS/NZS 2845.3

BUILDING AND OWNER DETAILS	
Building Name: CASHMERE HIGH SCHOOL	Legal Description of land where building is located: Lot 5 Deposited Plan 9847, Lot 2,3,4,10 Deposited Plan 9938
Street address of Building: 172 ROSE STREET	Location of Building within site/block number: As per latest Compliance Schedule
Level/Unit Number:	Compliance Schedule No: WOF51725
Name of Owner: Ministry of Education, Property Management Group, National Office, Wellington.	Contact Person: Argest Building and Compliance Management, as owners' authorised agent.
Mailing Address: PO Box 1666 Wellington, but refer to Argest as agent.	Street Address/Registered Office: 45-47 Pipitea St Wellington, but refer to Argest as Agent

Make of Device APOLLO Model Number RPAULF4A
 Serial Number 801885 Size 50MM
 Type of Protection: (Please Tick) Individual ☐ Zone ☒ Containment

Exact Location on Device: OUTSIDE Science Block

Reduced Pressure Devices		Relief Valve	Pressure Vacuum Breaker		Air Gap	
Double Check Devices			Air Inlet	Check Valve	Distance	
1 st Check	2 nd Check	Opened at:kPa	Opened at:kPakPa	YES	NO
DC-closed tight <input checked="" type="checkbox"/> RP.....kPa	DC-closed tight <input checked="" type="checkbox"/> RP.....kPa		Did Not Open <input type="checkbox"/>	Leaked... <input type="checkbox"/>		
Leaked... <input type="checkbox"/>	Leaked... <input type="checkbox"/>					

The inspection, maintenance, and reporting procedures of the compliance schedule have been fully complied with during the 12 months, prior to the test date shown.

Test Date 23-1-2018 Result (Please Tick) Pass ☒ Fail ☐

IQP (Please Print)

IQP Name M Cloake

IQP No. 664

IQP Signature M. Cloake

Comments NEW BACKFLOW

Testing Device (Please Print)

Gauge make WILKINS

Gauge Serial No. 05161519

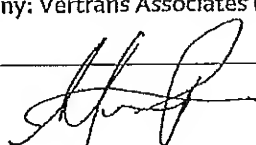
Gauge Last Tested

NOTE: This test report only constitutes an assessment of existing devices and does not mean ALL cross connections on site have been addressed. Neither does it mean the existing devices are appropriate for the hazard. Cross connections are a major PUBLIC HEALTH RISK and are the owner's responsibility to ensure they are addressed.

Rev. 7 Nov 2016

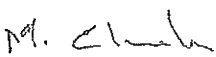
FORM 12A SECTION 108 (3) (C) BUILDING ACT 2004

CERTIFICATE OF COMPLIANCE WITH INSPECTIONS MAINTENANCE AND REPORTING PROCEDURES

THE BUILDING																													
Building Name: CASHMERE HIGH SCHOOL	Legal Description of land where building is located: LOT 1 DEPOSITED PLAN 484182																												
Street address of Building: 172 ROSE STREET	Location of Building within site/block number: Refer to actual BWOFF.																												
Level/Unit Number: Refer to actual BWOFF.	Compliance Schedule No: WOF51725																												
THE OWNER																													
Name of Owner: Ministry of Education, Property Management Group, National Office, Wellington.	Contact Person: Argest Building and Compliance Management, as owners' authorised agent.																												
Mailing Address: PO Box 1666 Wellington, but refer to Argest as agent.	Street Address/Registered Office: Argest, Ground Floor, 155 The Terrace, Wellington, postal, PO Box 10245 Wellington.																												
COMPLIANCE																													
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Comments: such as numbers of units, locations etc. Kone Hydro Star Direct Acting Passenger Lift No.1 (Admin Block) Code: NZBC D2/AS1 using NZS4332 Otis Hydroline Direct Acting Passenger Lift No.2 (S Block) Code: NZBC D2/AS1 using 1980 Power Lift Rules Kone MRL Passenger Lift No.3 (B Block) Code: NZBC D2/AS1 using EN81/1 Schindler MRL Passenger Lift No. 4 (D Block) Code: NZBC D2/AS1 using EN81/1 Cibes A 5000 Platform Hoist No. 5 (Gym) Code: NZBC D2/AS1 using Alternative Solution																													
Maintenance Contractor: Kone Elevators Pty Ltd, Unit 7/9 Craft Place, Middleton, Christchurch																													
Name of IQP (Please Print): Murray Barr	TA No: 60 ID No: 340 BWOFF due: 01 May																												
Name of IQP Company: Vertrans Associates (NZ) Ltd	IQP Number: 511																												
Signature of IQP: 	Date: 12 March 2019																												

FORM 12A SECTION 108 (3) (C) BUILDING ACT 2004

CERTIFICATE OF COMPLIANCE WITH INSPECTIONS MAINTENANCE AND REPORTING PROCEDURES

THE BUILDING	
Building Name: CASHMERE HIGH SCHOOL	Legal Description of land where building is located: Lot 5 Deposited Plan 9847, Lot 2,3,4,10 Deposited Plan 9938
Street address of Building: 172 ROSE STREET, CHRISTCHURCH,	Location of Building within site/block number: As per latest Compliance Schedule
Level/Unit Number: Refer to actual BWO.	Compliance Schedule No: WOF51725
THE OWNER	
Name of Owner: Ministry of Education, Property Management Group, National Office, Wellington.	Contact Person: Argest Technical Services Limited, as owners' authorised agent.
Mailing Address: PO Box 1666 Wellington 6140, but refer to Argest as agent.	Street Address/Registered Office: 45-47 Pipitea St Wellington, but refer to Argest as Agent.
COMPLIANCE	
The inspection, maintenance, and reporting procedures of the compliance schedule have been fully complied with during the 12 months prior to the date stated below in relation to the following specified system/s:	
SPECIFIED SYSTEMS – as per Compliance Schedules issued under Building Act 2004	
<input type="checkbox"/> SS1-Automatic systems for fire suppression	<input type="checkbox"/> SS10-Building maintenance units
<input type="checkbox"/> SS2-Emergency warning systems	<input type="checkbox"/> SS11-Laboratory fume cupboards
<input type="checkbox"/> SS3/1-Automatic door	<input type="checkbox"/> SS12/1-Audio loops
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<input type="checkbox"/> SS3/3-Interfaced fire or smoke doors or windows	<input type="checkbox"/> SS13/1-Mechanical smoke control
<input type="checkbox"/> SS4-Emergency lighting systems	<input type="checkbox"/> SS13/2-Natural smoke control
<input type="checkbox"/> SS5-Escape route pressurisation systems	<input type="checkbox"/> SS13/3-Smoke curtain
<input type="checkbox"/> SS6-Riser mains	<input type="checkbox"/> SS14/1-Emergency power systems
<input type="checkbox"/> SS7-Automatic Backflow Preventer's	<input type="checkbox"/> SS14/2-Signs
<input type="checkbox"/> SS8/1-Passenger carrying lift	<input type="checkbox"/> SS15/1a-Spoken information to facilitate evacuation
<input type="checkbox"/> SS8/2-Service lift	<input type="checkbox"/> SS15/2b-Final exits
<input type="checkbox"/> SS8/3-Escalator & moving walk	<input type="checkbox"/> SS15/3c-Fire separations
<input checked="" type="checkbox"/> SS9-Mechanical ventilation/air conditioning systems	<input type="checkbox"/> SS15/4d-Signs for facilitating evacuation
	<input type="checkbox"/> SS15/5e-Smoke separations
Comments: such as numbers of units, locations etc.	
Name of IQP (Please Print): M Cloake	TA No: 60 ID No: 340 BWO due: 01 May
Name of IQP Company: Argest	IQP Number: 664
Signature of IQP: 	Date: 8/2/2019